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ABSTRACT

This report is designed to provide the Norwalk (Connecticut) Board of Education and the entire school community with the status of the school system testing program for the spring of 1987. From May 6 through May 15, the system administered the Comprehensive Tests of Basic Skills (CTBSs) and the Test of Cognitive Skills (TCS) to 5,113 students in grades 1 through 8 (out of a total enrollment of 5,393). The CTBSs cover mathematics, language, reading, word attack, spelling, and reference skills. The TCS assesses students' skills in recognizing patterns and relationships, classifying objects, drawing conclusions, and remembering material. The TCS also assesses the students' probable achievement on the CTBS. The report covers test instruments used; analysis of test results; spring 1987 results by grade level; measurement units; the relationship of achievement to aptitude; use of results by instructional supervisors; and mathematics, language arts, and reading test summaries. Normal curve equivalents are used to examine progress over time. The students performed above the national median in mathematics at all grades except grade 3, and a positive trend in mathematics achievement for the study sample was found. Total language scores tended to be higher than total reading scores, and results for spelling and reference skills were fairly consistent. Twenty-eight bar graphs and 14 data tables are presented. (TJH)

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ED300379

**Norwalk Public Schools
Norwalk, Connecticut**

**NORWALK
SYSTEM-WIDE TESTING
RESULTS**

SPRING 1987

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PREFACE

This report is designed to provide the Norwalk Board of Education and the entire school community with the status of the testing program in the Norwalk Public Schools.

The administration, scoring, and reporting of the tests for school use are directed by the Testing and Evaluation Department of the Division of Administrative Services. The instructional implications of test scores are addressed by the Curriculum and Instruction Department.

Test scoring and reporting is done by the Norwalk Board of Education's Data Processing Center. Computer graphics for this report are prepared by George Fisler. This is the twelfth year of such reporting.

Dr. Michael L. Muro
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SYSTEM-WIDE TESTING RESULTS
SPRING 1987

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NORWALK PUBLIC SCHOOLS
REPORT ON SPRING 1987 TESTING PROGRAM

Introduction

This report on the results of the Spring 1987 administration of the COMPREHENSIVE TESTS OF BASIC SKILLS (CTBS) and the TEST OF COGNITIVE SKILLS (TCS) incorporates results from over 5100 pupils, grades 1-8. Table 1 illustrates the representativeness of student participation in this program.

TABLE 1
Student Participation in Spring 1987 Testing

Grade	1	2	3	4	5	6	7	8	TOTAL
No. Tested	714	641	620	662	610	636	589	641	5113
Enrollment (5/1/87)	785	674	649	694	634	653	624	680	5393
% Tested	91%	95%	96%	95%	96%	97%	94%	94%	95%

A slightly higher proportion of students (95%) participated in the 1987 achievement testing program than in 1986 (94%), largely the result of fewer Bilingual and E.S.O.L. pupils being exempted from testing.

Test Instruments Used

Tests were administered in regular classrooms during the period from May 6th - 15th. The forms and levels of tests employed at each grade are shown in Table 2.

TABLE 2
Test Forms/Levels Used in Grades 1-8

Grade	<u>CTBS</u>		<u>TCS</u>
	Form	Level	Level
1	U	C	-
2	U	D	1
3	U	E	2
4	U	F	2
5	U	G	3
6	V	G	3
7	U	H	4
8	V	H	4

Comprehensive Tests of Basic Skills

The CTBS is a battery of short tests that sample curriculum in use in a great many public and private schools across the nation. It was developed by the staff of CTB/McGraw-Hill, after reviews of state and local curriculum guides and textbooks. The CTBS can be used: (a) to examine performance of groups (classrooms or grade levels) of Norwalk students on test material that is similar to curriculum taught in Norwalk schools; (b) to compare a grade level group's performance to a pattern of performance by pupils in a large, national sample who were tested under similar conditions; (c) to judge whether most pupils in a class or a grade have mastered specific instructional objectives, following classroom instruction that emphasized those objectives; and/or (d) to evaluate the effectiveness of projects employing

particular organizational or instructional strategies by comparing the scores of pupils who participate in such projects to those of non-participants, holding other elements constant. Its major usefulness on an individual basis is to judge a pupil's mastery of specific instructional objectives following classroom instruction that emphasized those objectives.

Test of Cognitive Skills

The TCS is a battery of short tests that assess certain cognitive skills believed to be essential to success in academic work. It was developed by staff at CTB/MCGraw-Hill to address several current theories of intelligence. Its purposes are: (a) to assess a pupil's skills in recognizing patterns and relationships, classifying objects, drawing conclusions, and remembering previously-presented material; and (b) to estimate a pupil's likely achievement on the C.T.B.S. by showing the range of C.T.B.S. scores typically achieved by pupils of the same age, grade level and T.C.S. score group.

Analysis of Test Results

Students' answer sheets/booklets are scanned and scored at the Norwalk Board of Education's data processing center. Computer-generated reports of various kinds are printed: each has a primary audience and purpose, as shown below.

. Individual profiles. A printout of each child's achievement and cognitive skills results is mailed to parents. A copy

of this report goes into the child's permanent record. Copies are available to classroom teachers (elementary schools) and guidance counselors (middle schools).

. Item analyses. Information on percentages of items answered correctly, as well as the incorrect responses ("distractors") chosen most often, is provided to instructional supervisors.

. Grade level summaries by school; District summaries. These two kinds of summary reports offer building and central office administrators profiles of average performance of pupils by grade level and content area.

Presentation of Spring 1987 Results by Grade Levels

In the graphs presented in later pages of this report, system-wide summaries of students' performance on the Spring tests will be depicted in terms of national percentile equivalents of total test scores and the subtests which make up those totals. The CTBS graphs appear in this order:

Mathematics. The Total Mathematics (TM) score is based upon student performance on Mathematics Computation (MC) and Mathematics Concepts and Application (MA) subtests.

Language. The Total Language (TL) score is based upon student performance on Language Mechanics (LM) and Language Expression (LE) subtests.

Reading. The Total Reading (TR) score is based upon student performance on Reading Vocabulary (RV) and Reading Comprehension (RC) subtests.

Word Attack. This subtest is a part of the CTBS at grades 1-3.

Spelling. The Spelling (SP) score is not a combination of scores but is based upon student performance in a single subtest area. Spelling appears in the CTBS battery beginning at grade two.

Reference Skills. As with Spelling, the Reference Skills (RS) score is a single subtest score. Reference Skills is part of the CTBS only at grades 4-8.

Measurement Units

Traditionally, student performance has been summarized as a national percentile ranking that indicates where the "average" Norwalk student stands in comparison to the test publisher's norm group. Percentiles as measurement units offer these advantages:

1. The range of the percentile scale (1-99) allows an interpretation that corresponds to our intuitive understanding of percentages. Here, we are examining the status of a "typical" (mean or average) score computed from the scores of all the members of a grade level group. For example, a percentile of 54 means that our typical scorer achieved a score that equalled or exceeded the scores of 54 per cent of the students in the test publisher's norming group. (The latter is assumed to be a representative sample of all American students at that grade, tested at that time of year, under the same conditions of test administration and scoring.)

2. Percentile ranks carry the same meaning across grade levels and across skill areas.

However, the reader is cautioned that percentiles do not constitute an equal-interval scale. For example, the difference between the 90th and the 95th percentile is much greater than the difference between the 50th and the 55th percentile. Therefore, any comparison of changes that occur at different points along the scale would be misleading. Another measurement unit is required when such comparisons are to be made. One such unit, the normal curve equivalent (N.C.E.), is employed in this report. The use of the N.C.E. unit permits us to examine a group's progress over time, or different groups when measured on two or more occasions.

Relationship of Achievement to Aptitude

The Test of Cognitive Skills (TCS) can be thought of as one of a family of "intelligence" measures. Current theories of intelligence share a belief that several discrete "intelligences" exist; i.e., that there is no meaningful general measure, such as the I.Q. which once was so widely employed.

The TCS is composed of four subtests: Analogies, Sequences, Memory, and Verbal Reasoning. The TCS also offers a Total score. From that Total test score, a pupil's performance can be compared to the performance by others of the same age. Several (age) norm-referenced scores can be derived, including a Cognitive Skills Index (CSI). The CSI reflects a pupil's performance on tasks similar to those frequently encountered in academic work as compared with the performance of the pupil's age-peers. The CSI should not be thought of as an indicator of a student's ability to benefit from instruction.

In this report, tables that summarize the performance of grade-level groups on the TCS, are referenced to pupils at the same grade in the national norm group, regardless of their ages.

Discussion of Results

Examination of the CTBS achievement profiles for each grade level 1 through 8 (pp. 32-39), reveals that average student performance varies greatly by test area, although typically it is at or near national median. Tables 3 to 16 (pp. 42-48) plot students' CTBS achievement against predicted achievement, based upon their TCS performance. The "prediction" is a statistical procedure that is most accurate for ability scores near the middle of the distribution. Measurement error in both instruments, as well as the degree of correlation between them, affects the accuracy of the statistical prediction.

How These Results Are Used by Instructional Supervisors

Instructional Supervisors use test results as part of their judgments of program effectiveness. In addition to receiving charts and graphic displays of average student performance, instructional supervisors receive the analyses of student performance on specific test objectives. With such information supervisors are able to determine relative strengths and weaknesses of the local curriculum.

Mathematics Test Summaries

The results of the Spring 1987 C.T.B.S. testing show Norwalk students to be above the national median in mathematics at all grades except grade three. The grade three results, while

not as high as desired, seem to reflect a trend that may be influenced by our philosophy in the grades 3-5 curriculum. The results of the last three administrations of the C.T.B.S. show the same type of grade three results. The C.T.B.S. test reflects a more traditional grade three mathematics curriculum, while our Math Mastery program emphasizes mastery of foundation objectives over exposure.

It is our belief that, for most students, covering less material but covering it in more depth lays a better foundation for success. This seems to be borne out by our grade five results which show students to be significantly above the national average both in the Spring of '86 and the Spring of '87.

Another area that needs addressing is grade eight. In all three administrations of the C.T.B.S. it seems that scores drop from grade seven to grade eight. In all cases the grade eight results are still above the national average, which in itself is positive, but the decline from grade seven requires a closer look at the two major components of the Total Math battery, the math. computation and the math. concepts and applications subtests (p. 15). The following chart summarizes the results of the last two testing dates.

National Percentile Rank of the Average Eighth Grade Pupil		
	<u>Spring 1986</u>	<u>Spring 1987</u>
COMPUTATION	59	59
CONCEPTS AND APPLICATIONS	48	51
TOTAL MATH	51	53

It seems clear that the sub-test of concepts and applications is the area where performance needs improvement. In simple terms it seems that an attempt must be made to increase the emphasis on applying the computational skills learned. This process already has begun and will continue throughout the year.

This is the first time that Norwalk is reporting mathematics results on a Spring-Spring basis (p. 16). This comparison of Spring '86 with Spring '87 seems to show almost identical results at all levels except grade 1. In grade one the '87 results are significantly above the '86 results.

Also included in this report for the first time is a cohort graph (p. 17). Spring '87 grade two results are shown next to the Spring '86 grade one results, and so on. These cohorts represent essentially the same groups of students measured at two different times.

In summary, these results show a positive trend in mathematics achievement by Norwalk students.

Language Arts and Reading Test Summaries

The Language Arts charts summarize the results of the Language, Reading, Word Attack, Spelling and Reference Skills components of the CTBS. Summaries include the 1987 results, 1986-87 comparisons, cohort comparisons and subtest comparisons. Grade and cohort comparisons are represented by normal curve equivalents. The other results are represented by percentiles.

In general, both the grade-by-grade and the cohort comparisons of Total Reading scores (pp. 24 and 25, respectively) show

consistency across grade levels. Exceptions appear in grade one where the 1987 scores improved over the 1986 scores, in grade four where scores of the same students improved over grade three, and in grade six where student scores declined from grade five. Subtests within the reading battery (p. 23) showed consistency for most grades, as well, the exceptions being grade two, where reading comprehension outdistanced reading vocabulary, and grade six, where the opposite happened.

Total Language scores showed an overall trend toward improvement as the same students progress to the next grade. (p. 21). Language subtests (p.19) were erratic, with no clear pattern systemwide.

Total Language scores tended to be better than Total Reading scores. However, when a grade was low in one area, it also was low in the other. Third and sixth grades continued to be the weakest grades, with relatively no change shown from 1986. On the other hand, grade one results are encouraging: not only was there significant improvement over 1986 but scores were well above the 50th percentile (58 in Reading and 62 in Language).

Spelling results were fairly consistent not only across grade levels but from 1986 to 1987, the lowest scores being in grades three and eight. Word Attack scores moved upward in grades one and two but remained the same in grade three. An interesting note is that while scores in reading and language were lower in grade three than at other grades, word attack

scores were higher there. Reference Skills remained consistent with a slight drop in grade eight.

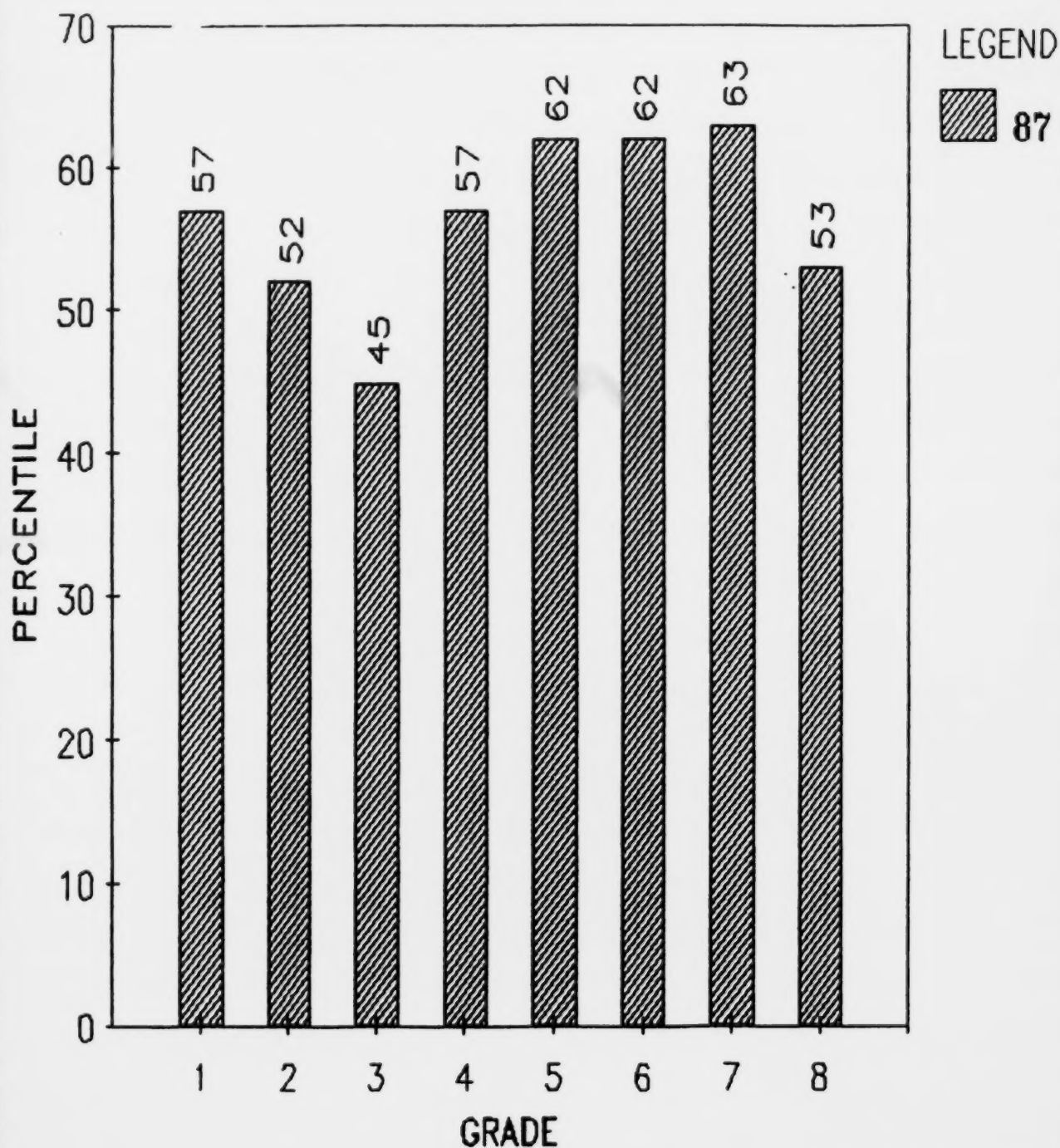
The addition of the phonics book in grades one and two appears to have made a positive difference. An increased emphasis on writing in many classrooms, as well as the use of the new language book, also appears to have influenced scores favorably. Intensive examination of factors which could be influencing reading scores began in 1986 and has continued into the 1987-88 school year. Areas targeted thus far include grouping practices, reading in the content areas, seatwork activities, opportunities for independent reading beyond the basal, and the reading-writing connection.

Curricular revision is underway at all three levels and improvement is anticipated as changes are made and teachers receive in-servicing in instructional strategies.

NORWALK SCHOOL TESTING SCORES

CTBS PERCENTILES 1986-1987 BY GRADE

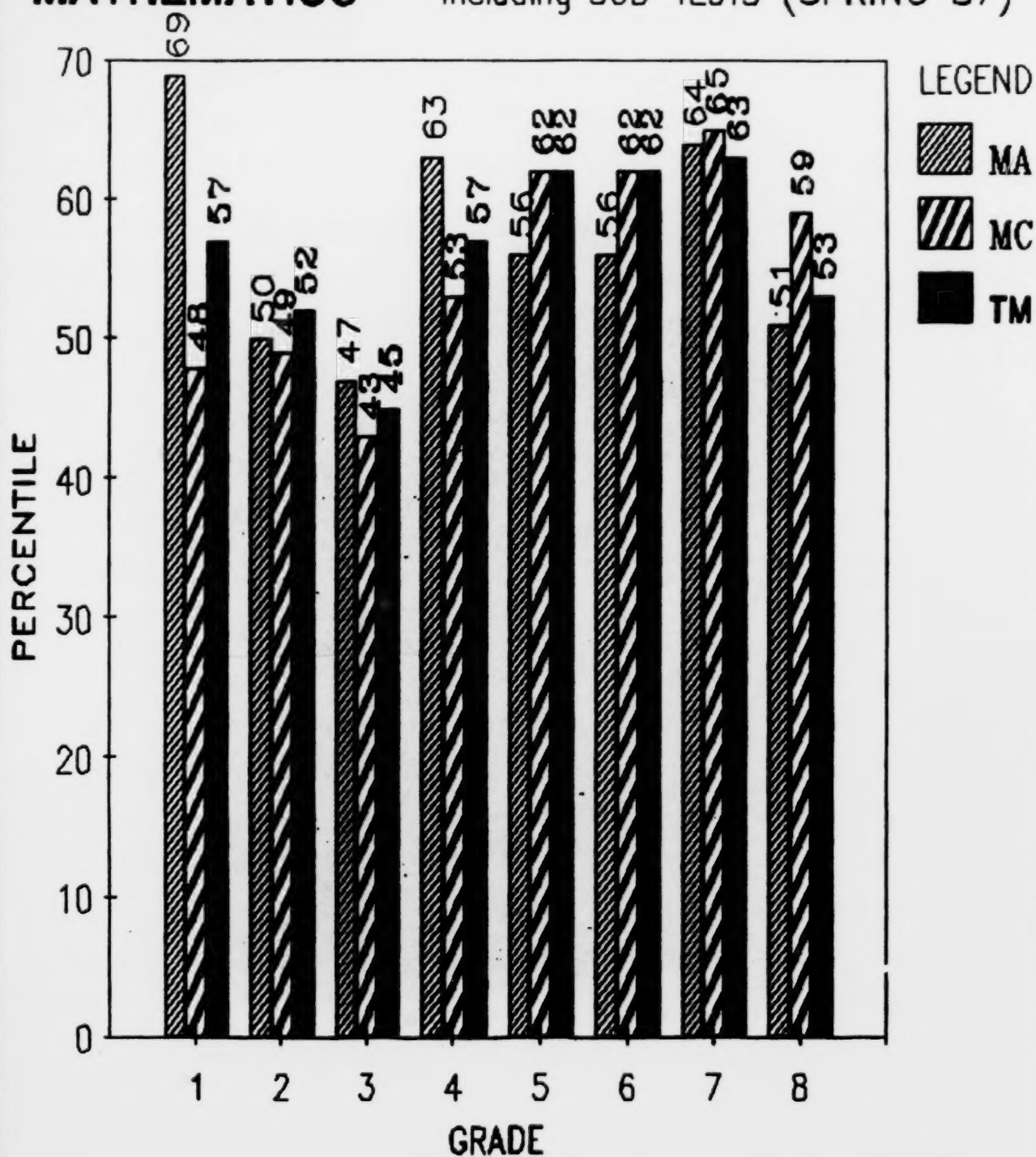
MATHEMATICS



NORWALK SCHOOL TESTING SCORES

CTBS PERCENTILES 1986-1987 BY GRADE

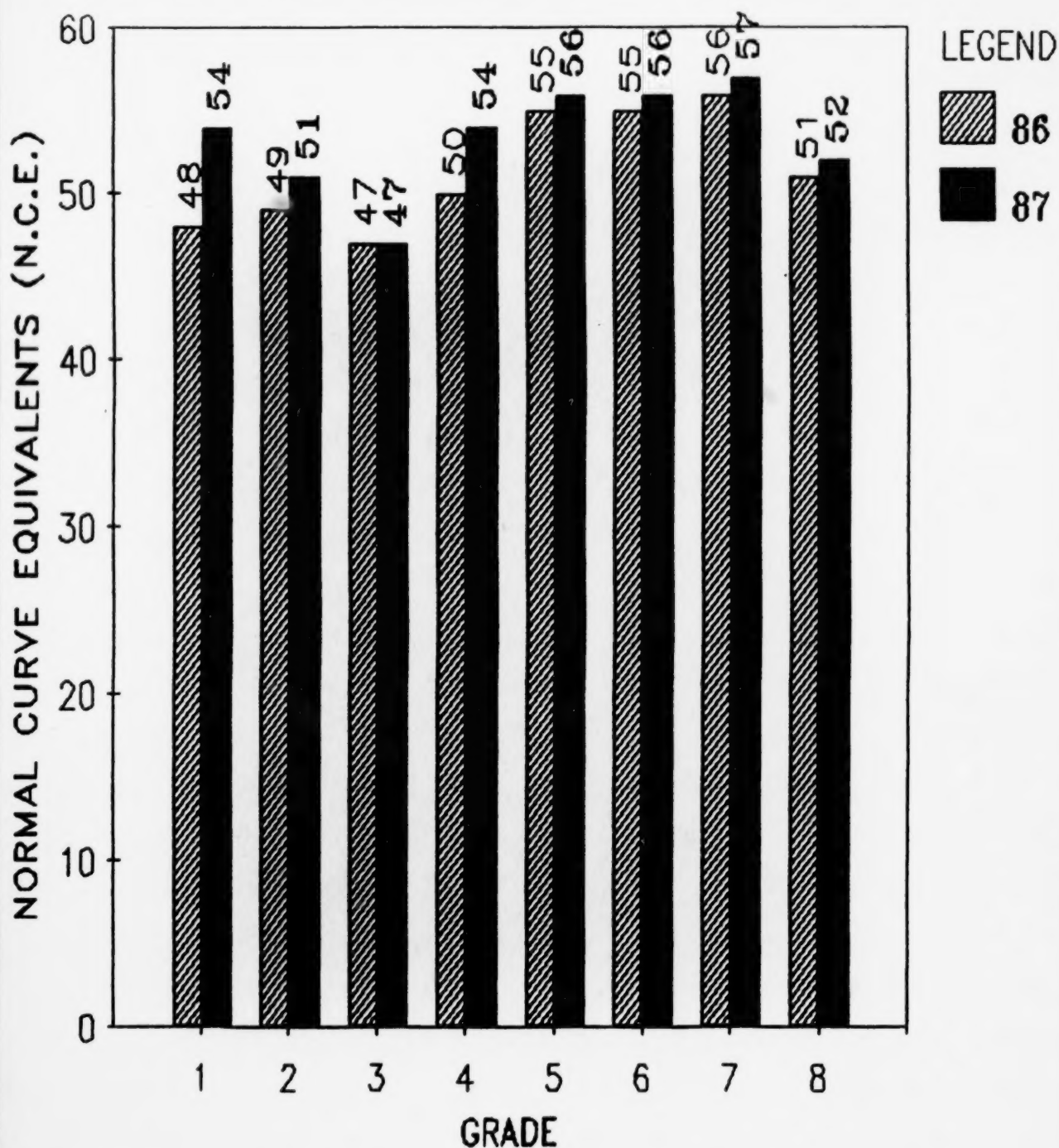
MATHEMATICS - including SUB-TESTS (SPRING 87)



NORWALK SCHOOL TESTING SCORES

CTBS NORMAL CURVE EQUIVALENTS 1986-1987

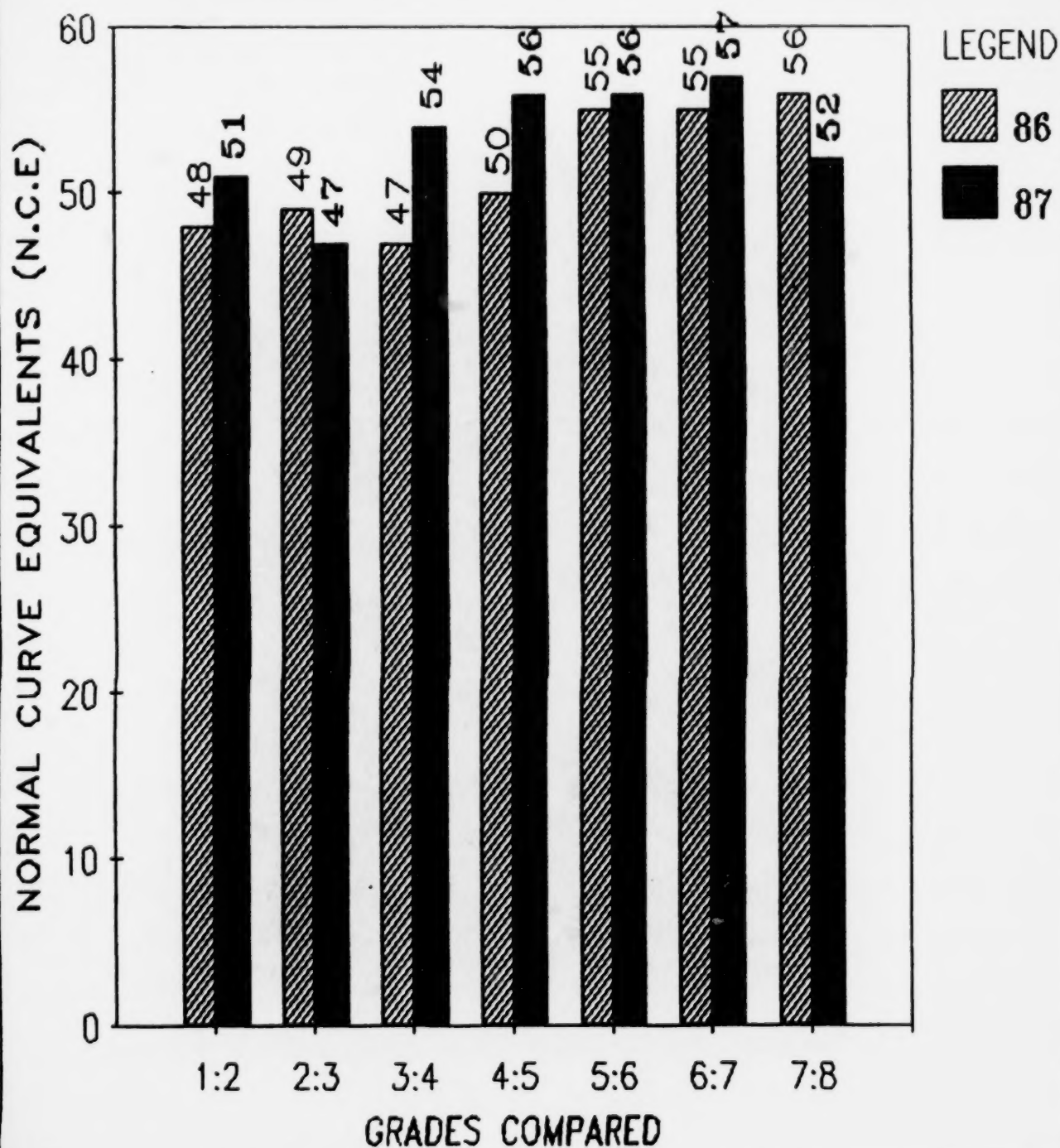
MATHEMATICS BY GRADE



NORWALK SCHOOL TESTING SCORES

CTBS NORMAL CURVE EQUIVALENTS 1986-1987

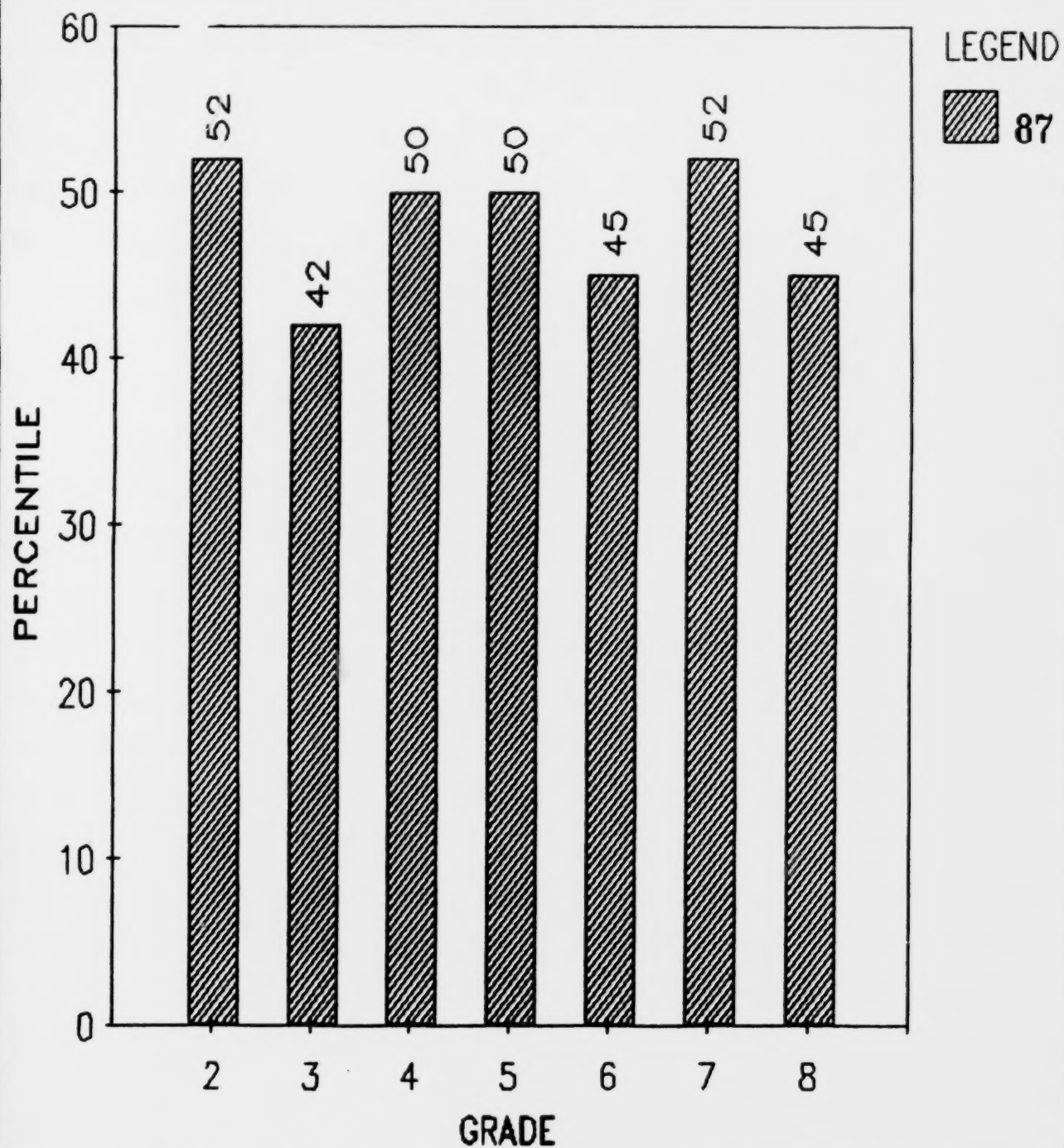
MATHEMATICS BY GRADE COHORT



NORWALK SCHOOL TESTING SCORES

CTBS PERCENTILES 1986-1987 BY GRADE

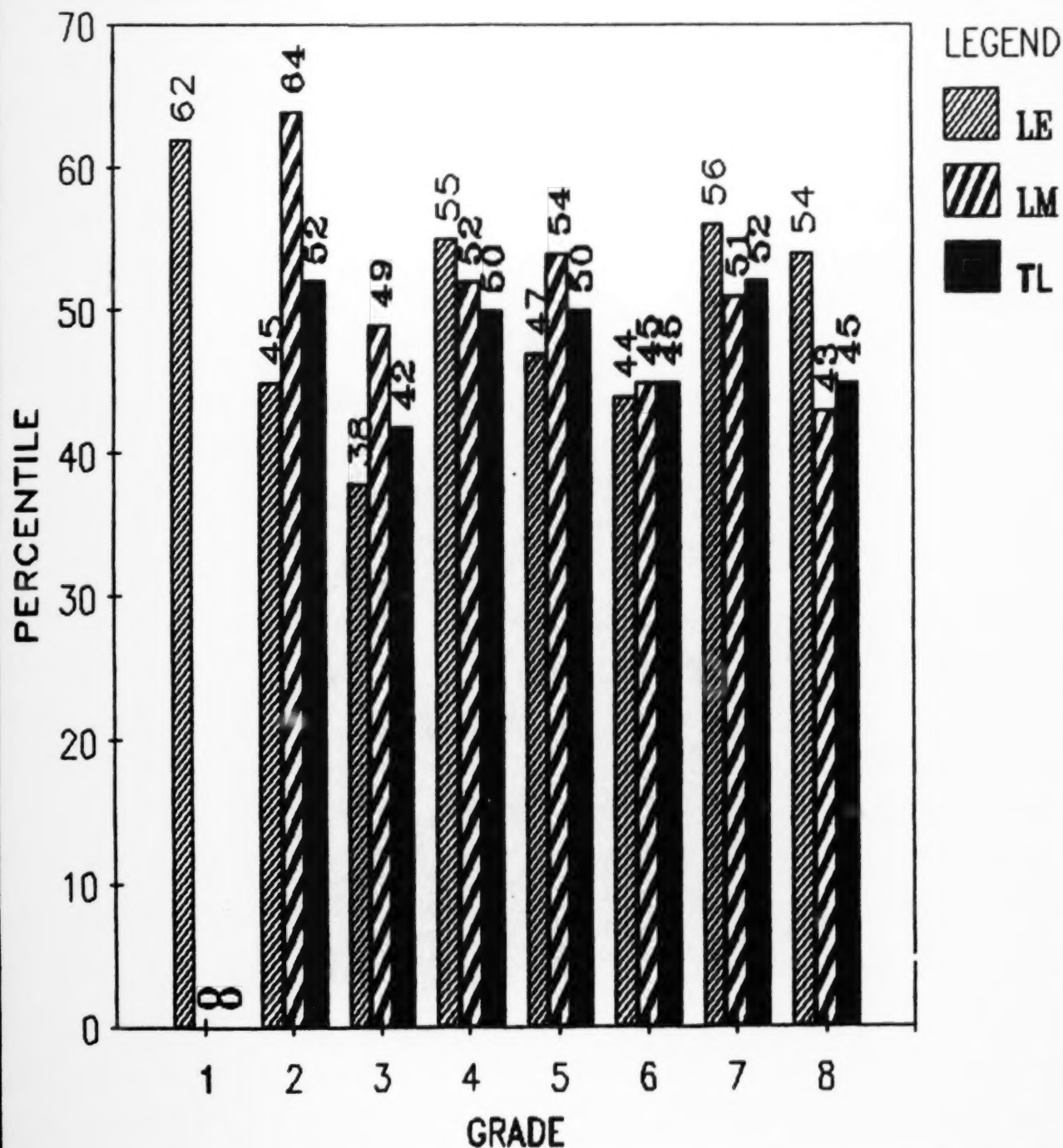
LANGUAGE



NORWALK SCHOOL TESTING SCORES

CTBS PERCENTILES 1986-1987 BY GRADE

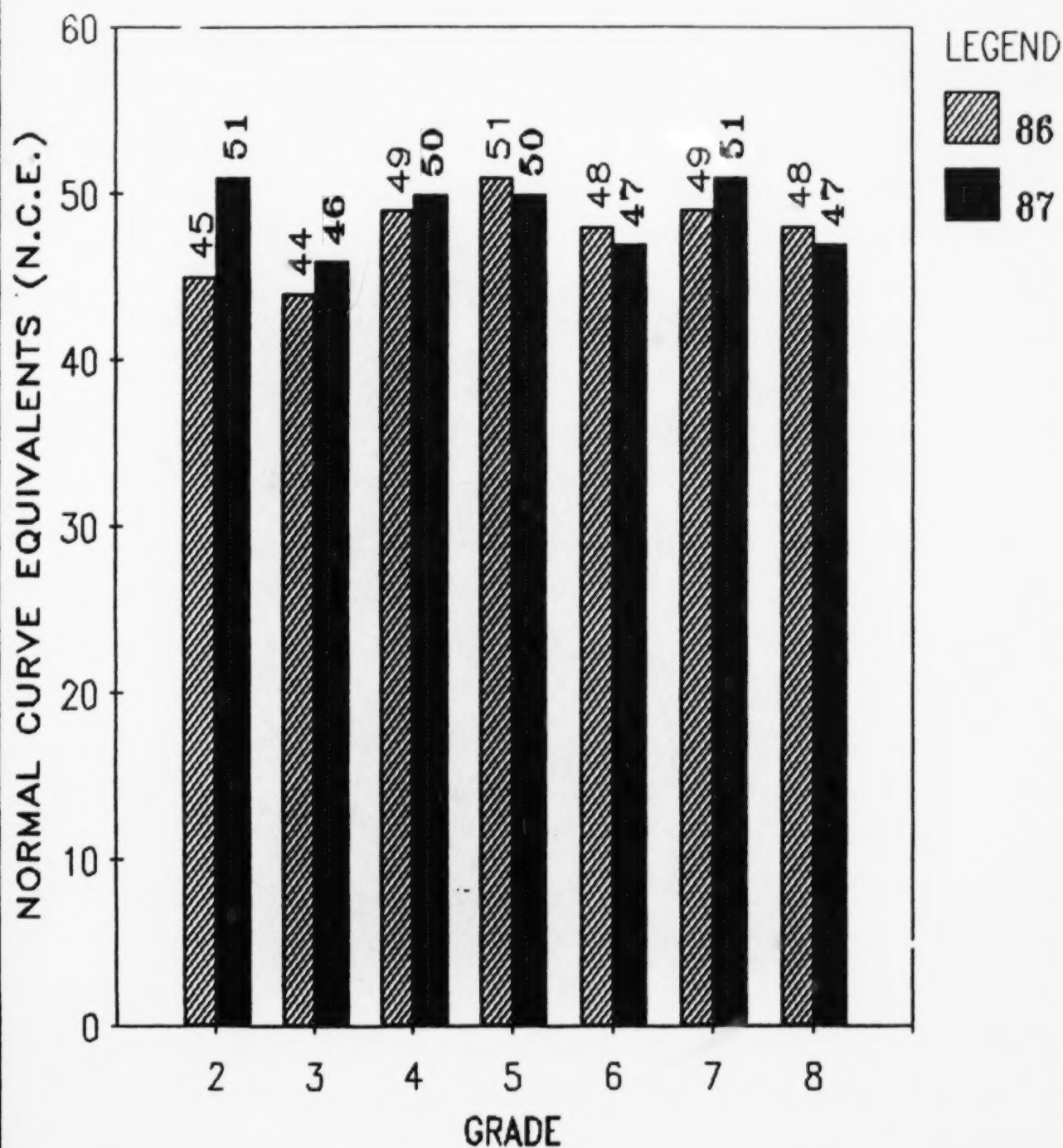
LANGUAGE - including SUB-TESTS (SPRING 87)



NORWALK SCHOOL TESTING SCORES

CTBS NORMAL CURVE EQUIVALENTS 1986-1987

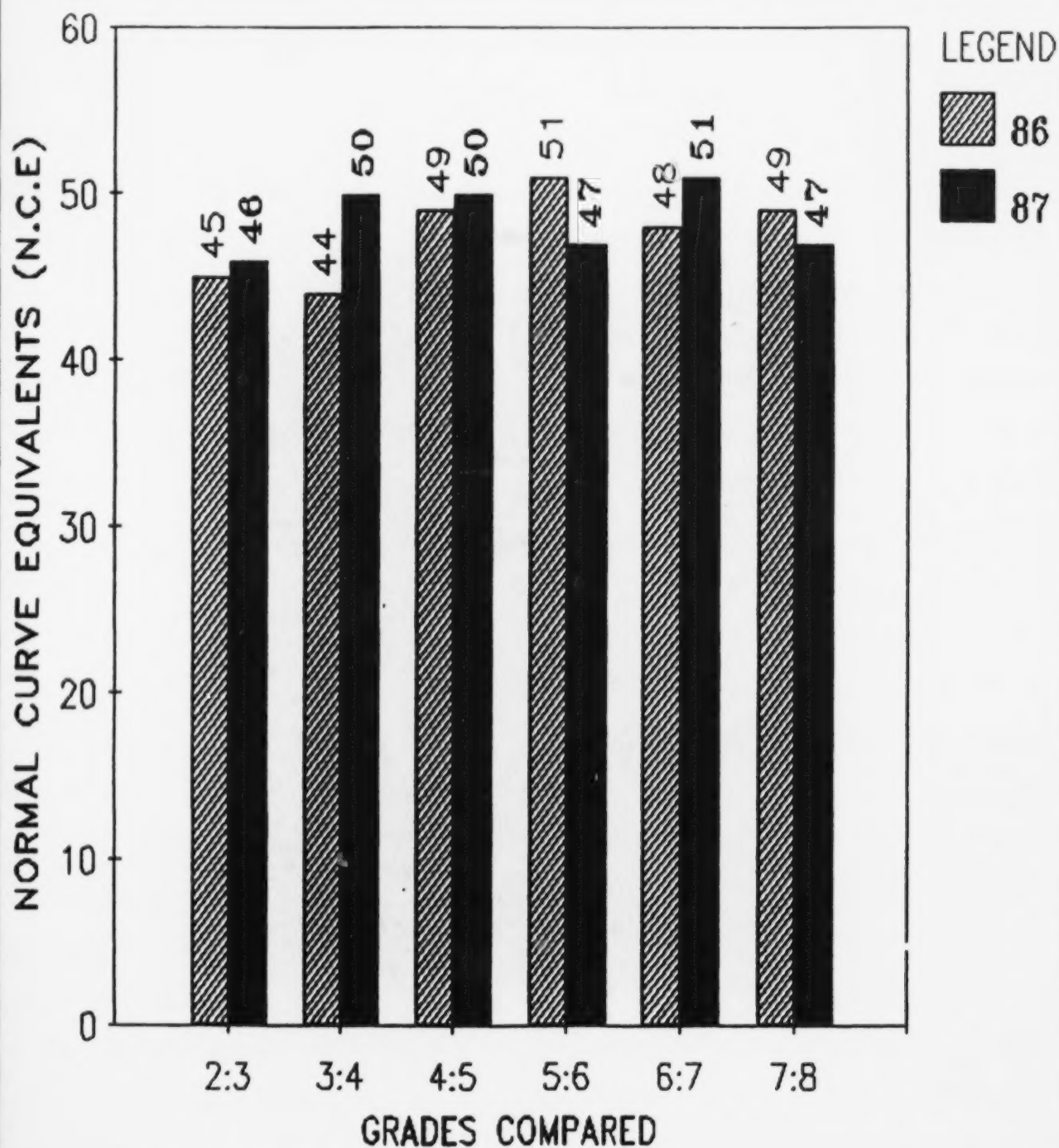
LANGUAGE BY GRADE



NORWALK SCHOOL TESTING SCORES

CTBS NORMAL CURVE EQUIVALENTS 1986-1987

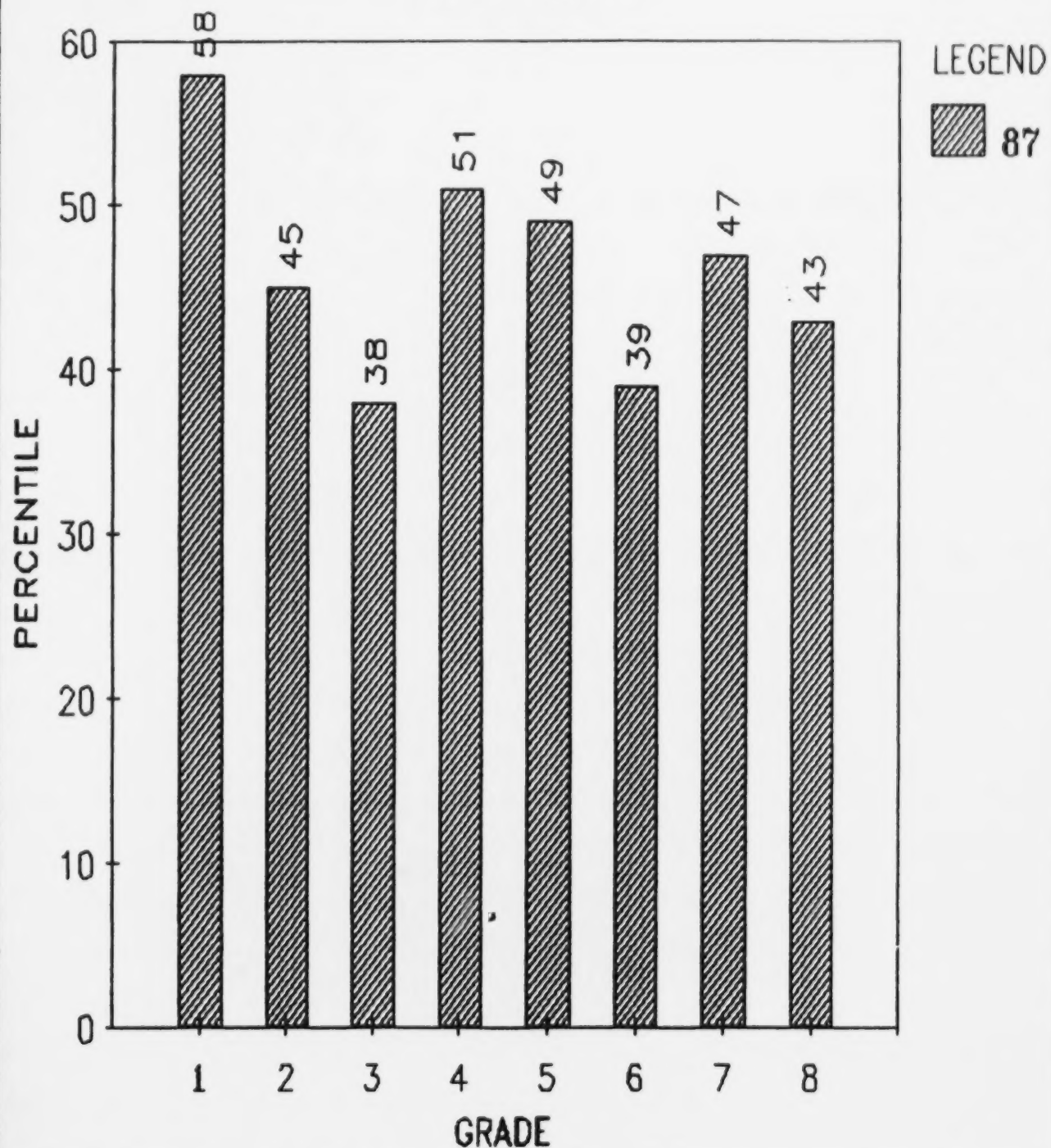
LANGUAGE BY GRADE *COHORT*



NORWALK SCHOOL TESTING SCORES

CTBS PERCENTILES 1986-1987 BY GRADE

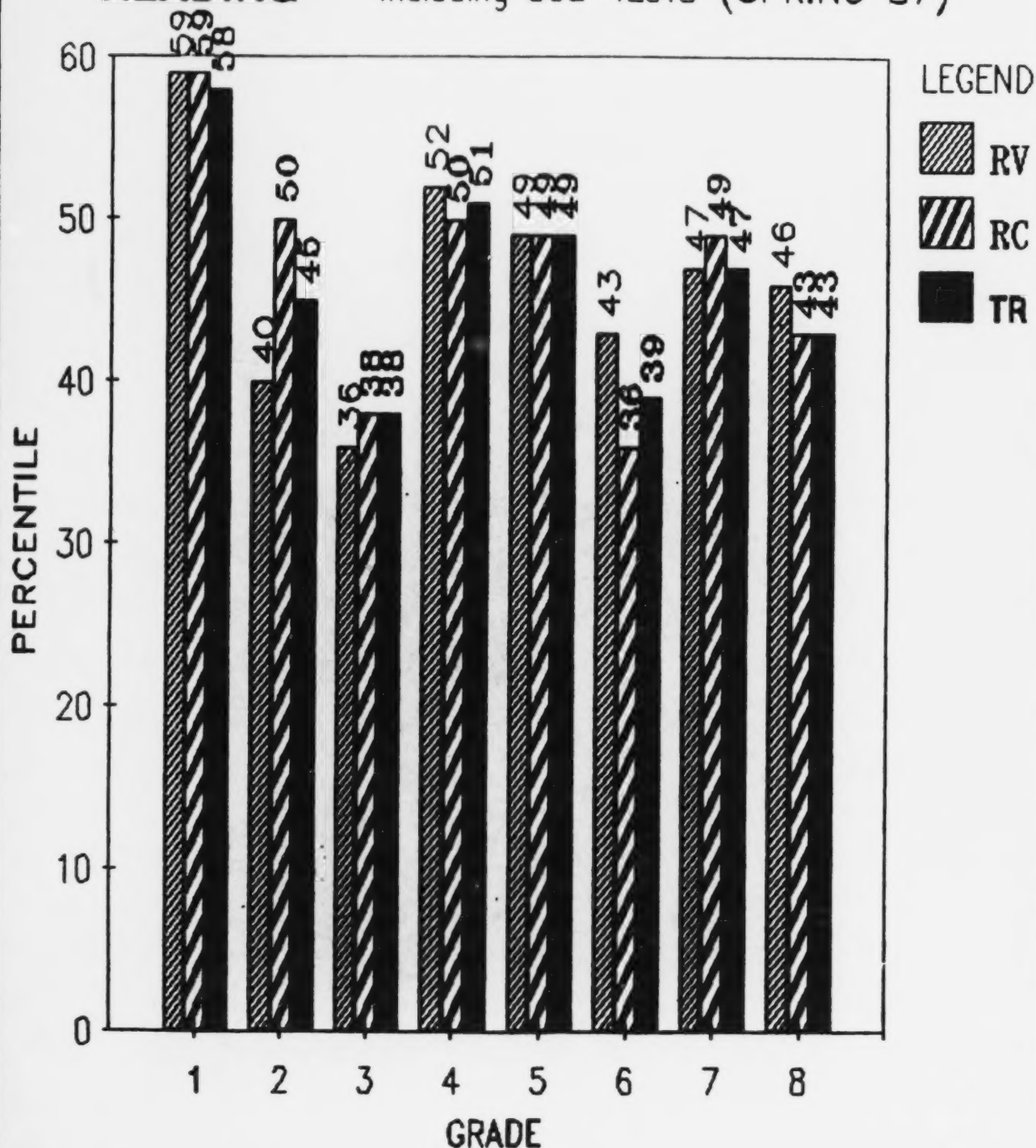
READING



NORWALK SCHOOL TESTING SCORES

CTBS PERCENTILES 1986-1987 BY GRADE

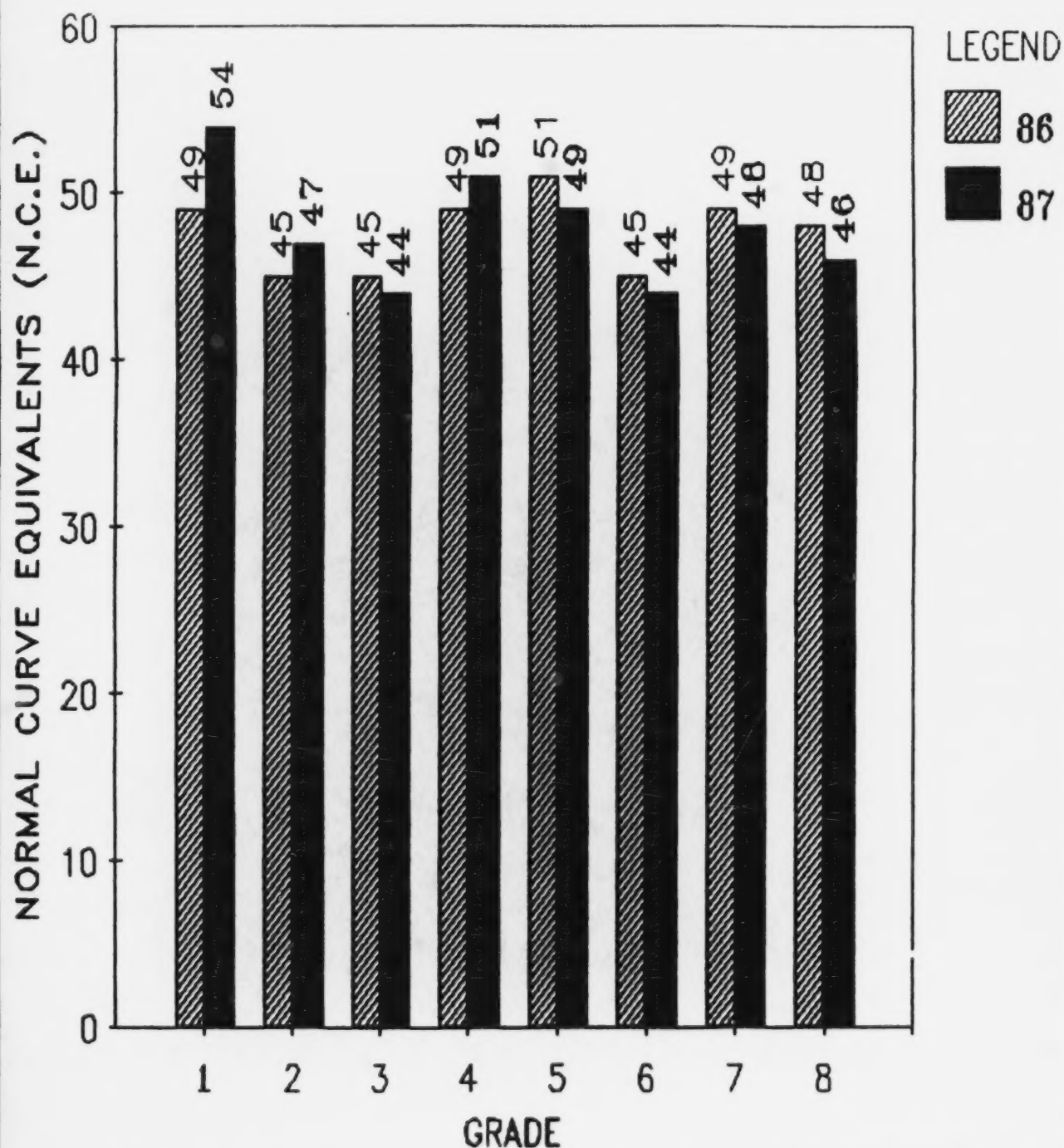
READING - including SUB-TESTS (SPRING 87)



NORWALK SCHOOL TESTING SCORES

CTBS NORMAL CURVE EQUIVALENTS 1986-1987

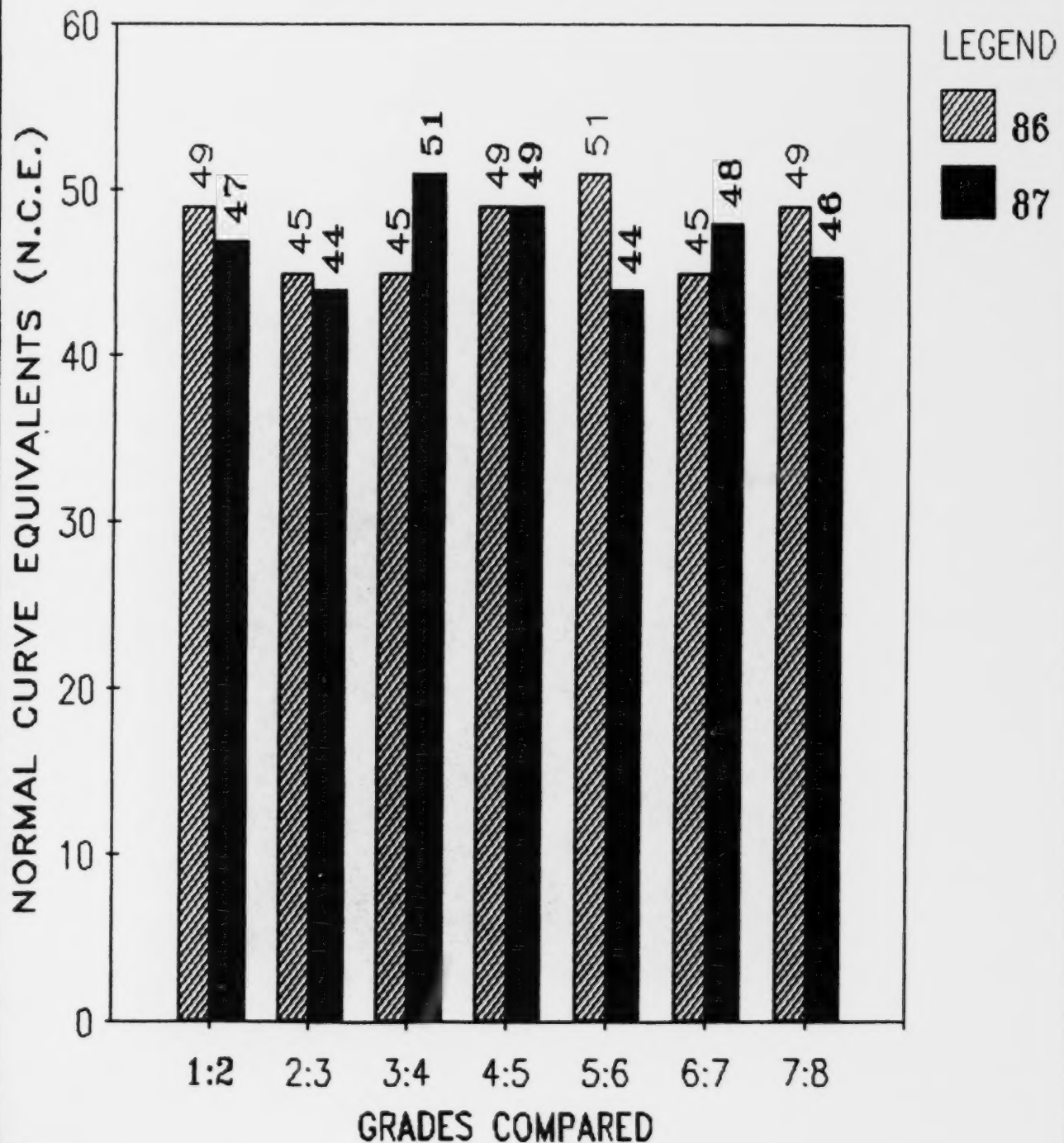
READING BY GRADE



NORWALK SCHOOL TESTING SCORES

CTBS NORMAL CURVE EQUIVALENTS 1986-1987

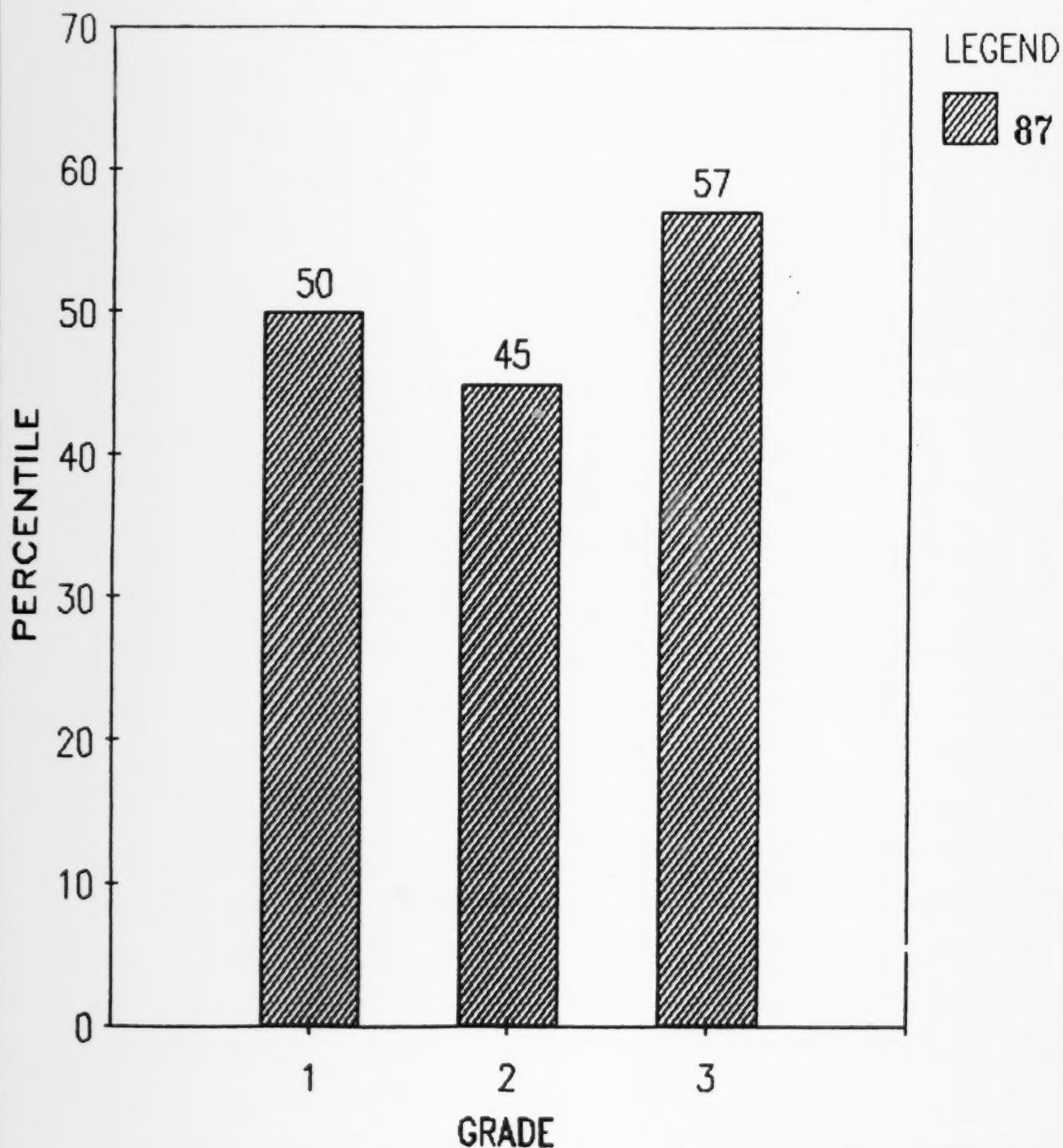
READING BY GRADE *COHORT*



NORWALK SCHOOL TESTING SCORES

CTBS PERCENTILES 1986-1987 BY GRADE

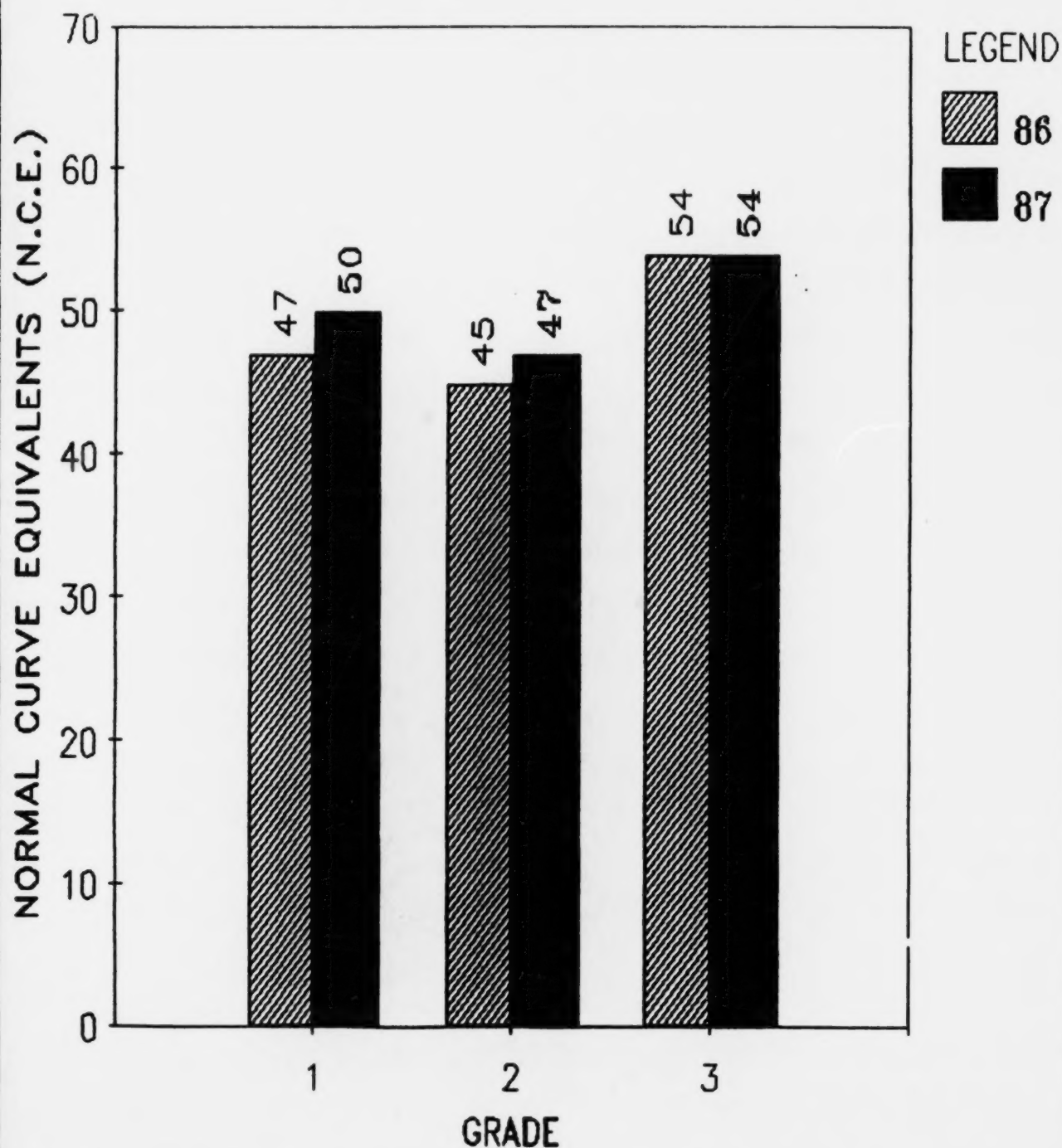
WORD ATTACK



NORWALK SCHOOL TESTING SCORES

CTBS NORMAL CURVE EQUIVALENTS 1986-1987

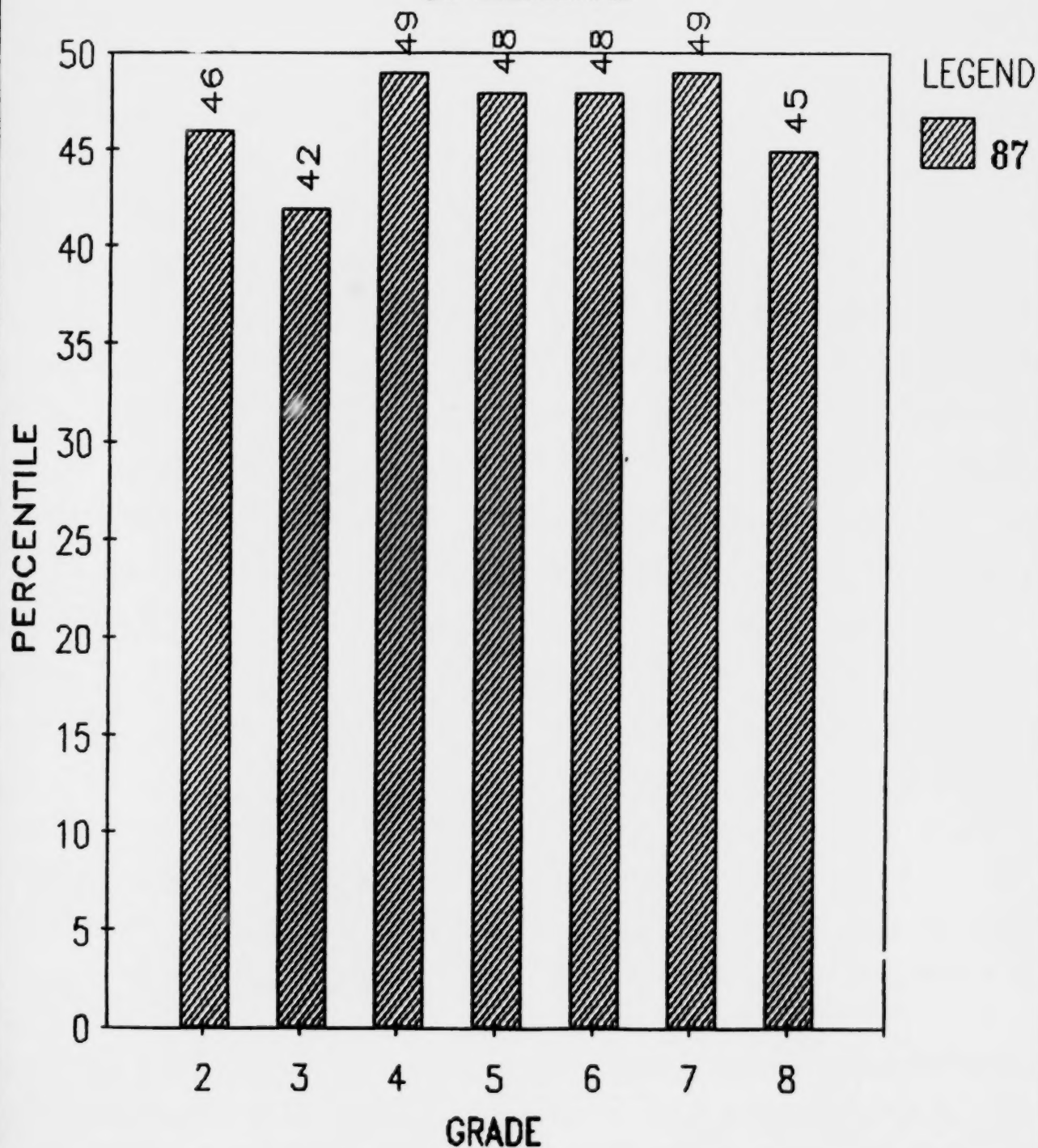
WORD ATTACK BY GRADE



NORWALK SCHOOL TESTING SCORES

CTBS PERCENTILES 1986-1987 BY GRADE

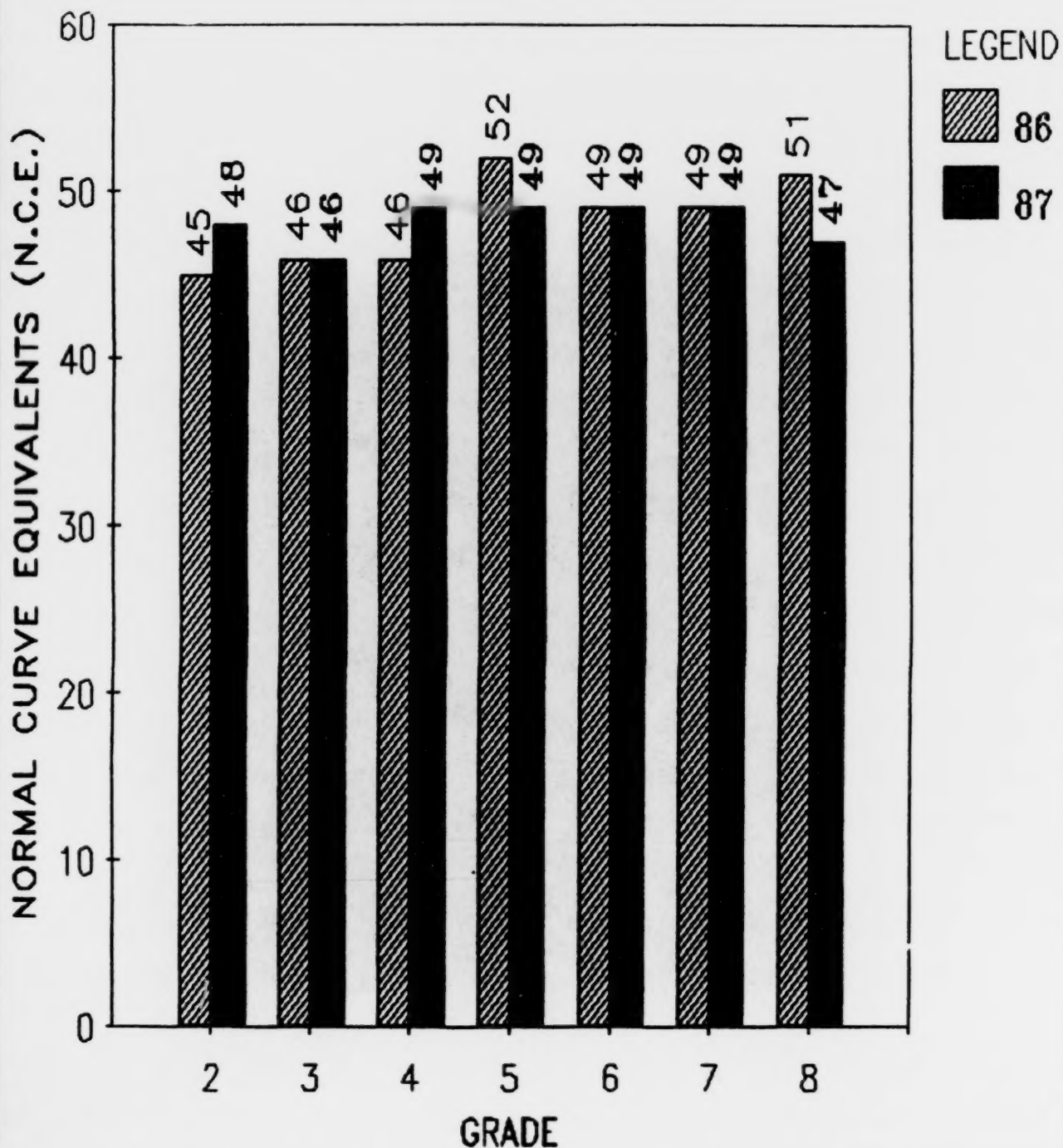
SPELLING



NORWALK SCHOOL TESTING SCORES

CTBS NORMAL CURVE EQUIVALENTS 1986-1987

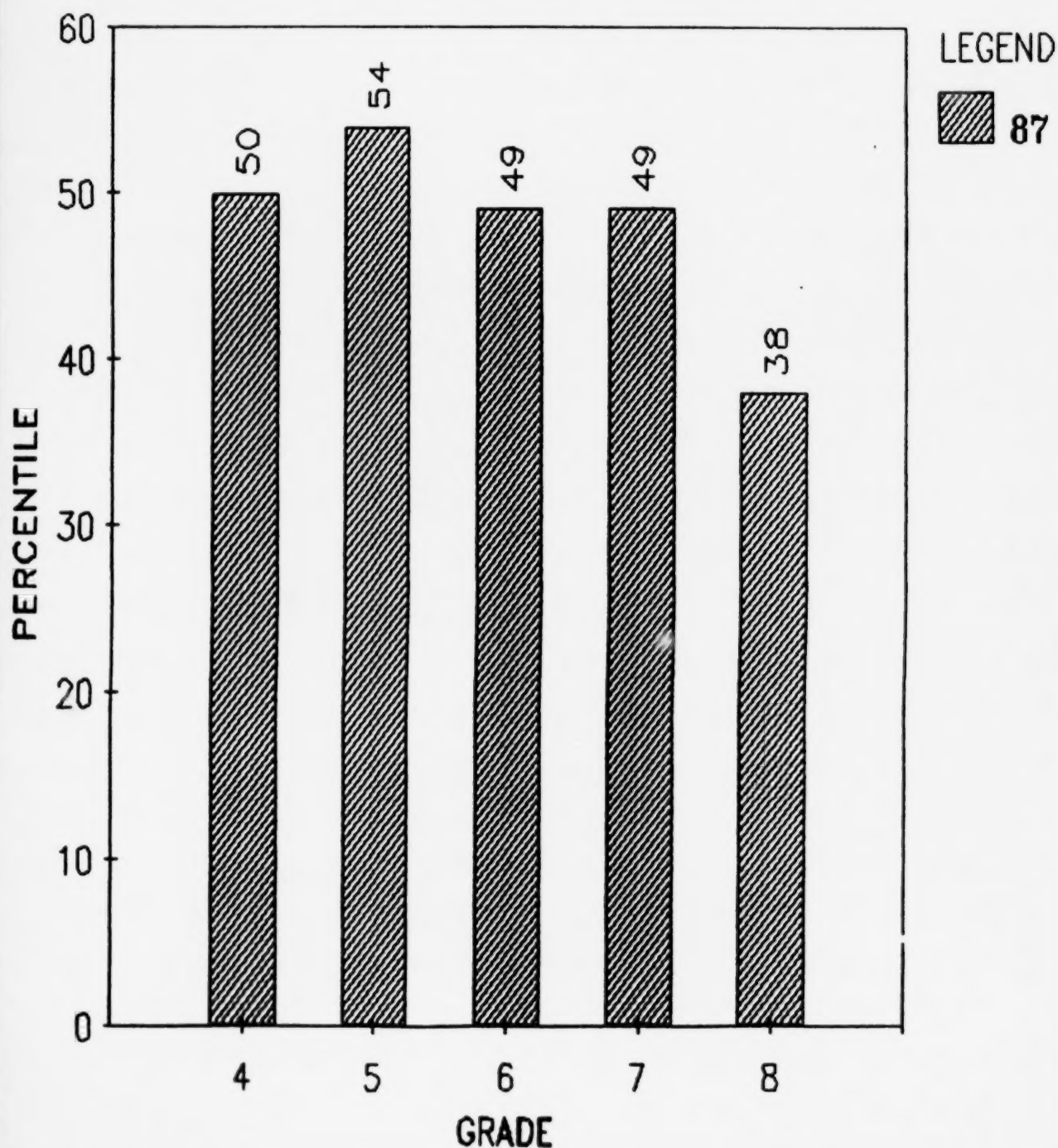
SPELLING BY GRADE



NORWALK SCHOOL TESTING SCORES

CTBS PERCENTILES 1986-1987 BY GRADE

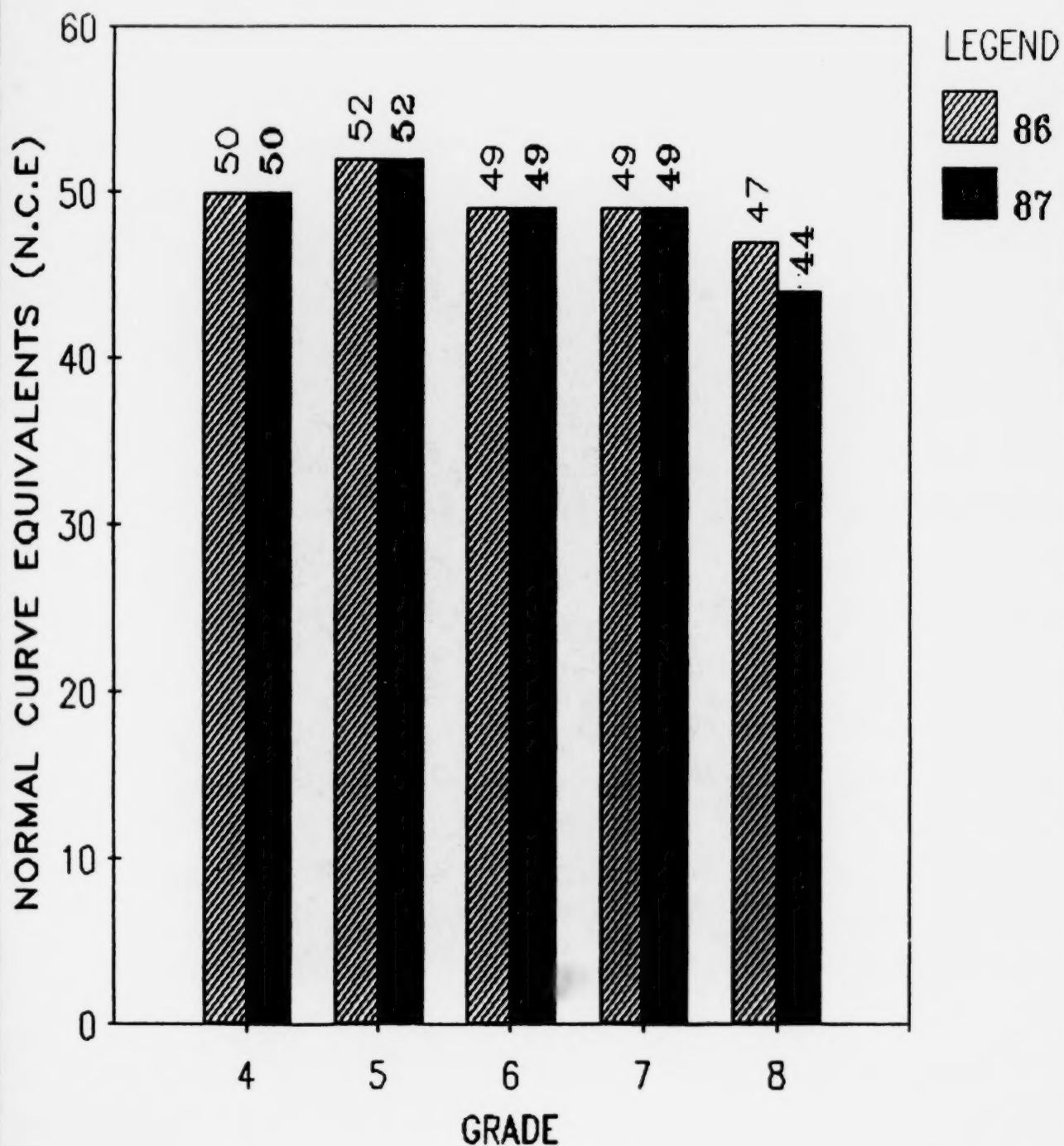
REFERENCE SKILLS



NORWALK SCHOOL TESTING SCORES

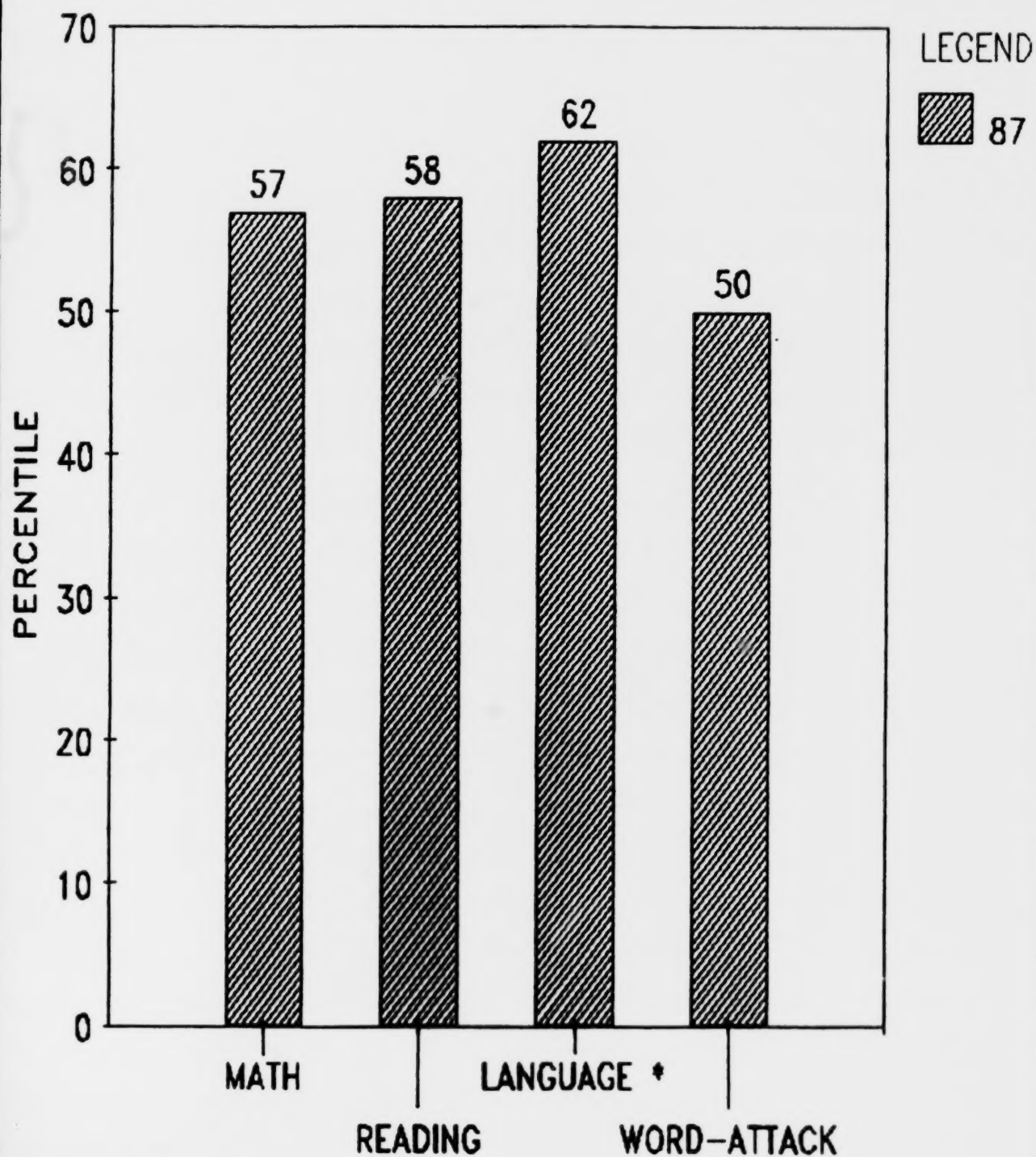
CTBS NORMAL CURVE EQUIVALENTS 1986-1987

REFERENCE SKILLS BY GRADE



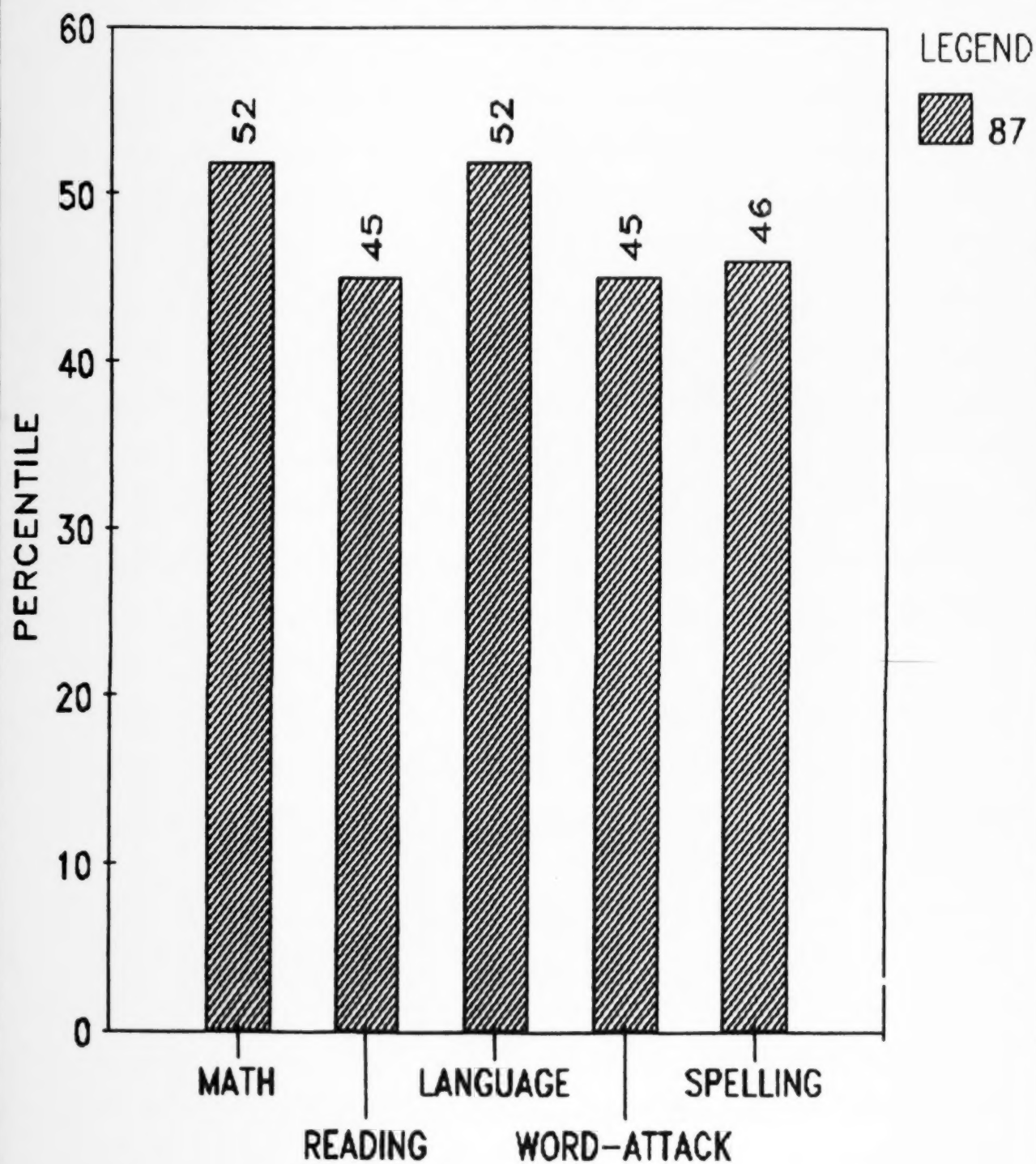
NORWALK SCHOOL TESTING SCORES

CTBS Grade **1** PERCENTILES 1986-1987



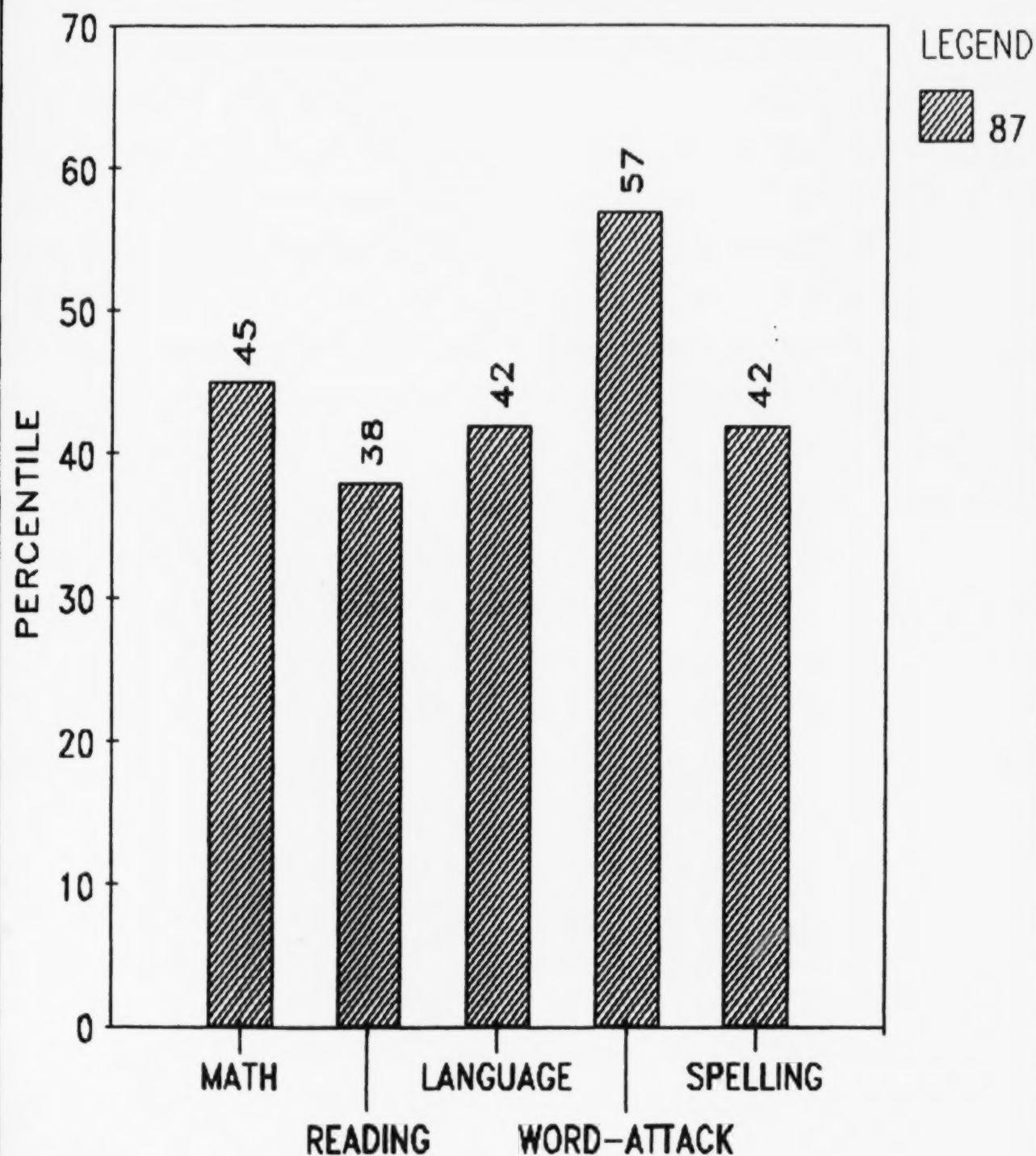
NORWALK SCHOOL TESTING SCORES

CTBS Grade **2** PERCENTILES 1986-1987



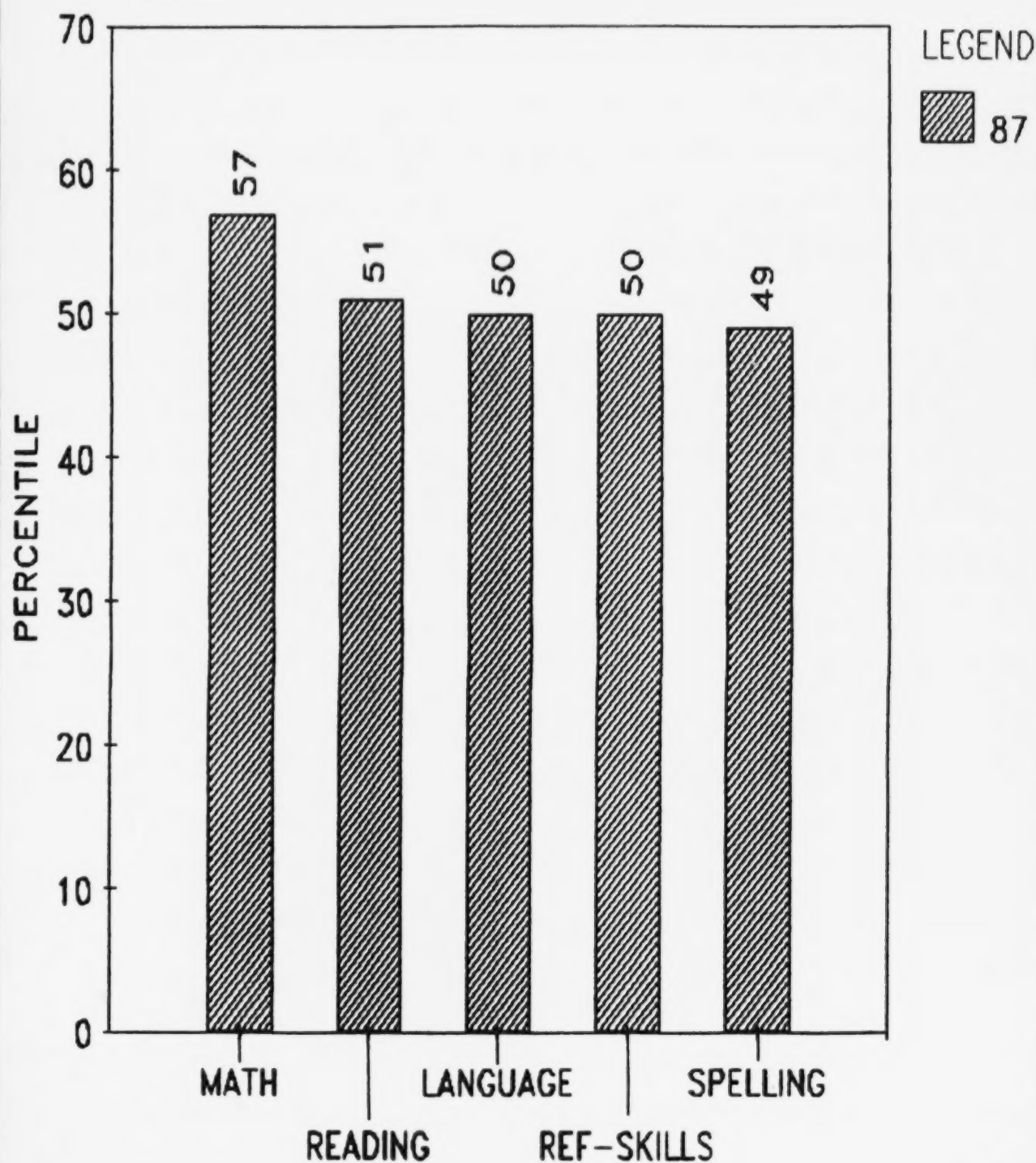
NORWALK SCHOOL TESTING SCORES

CTBS Grade **3** PERCENTILES 1986-1987



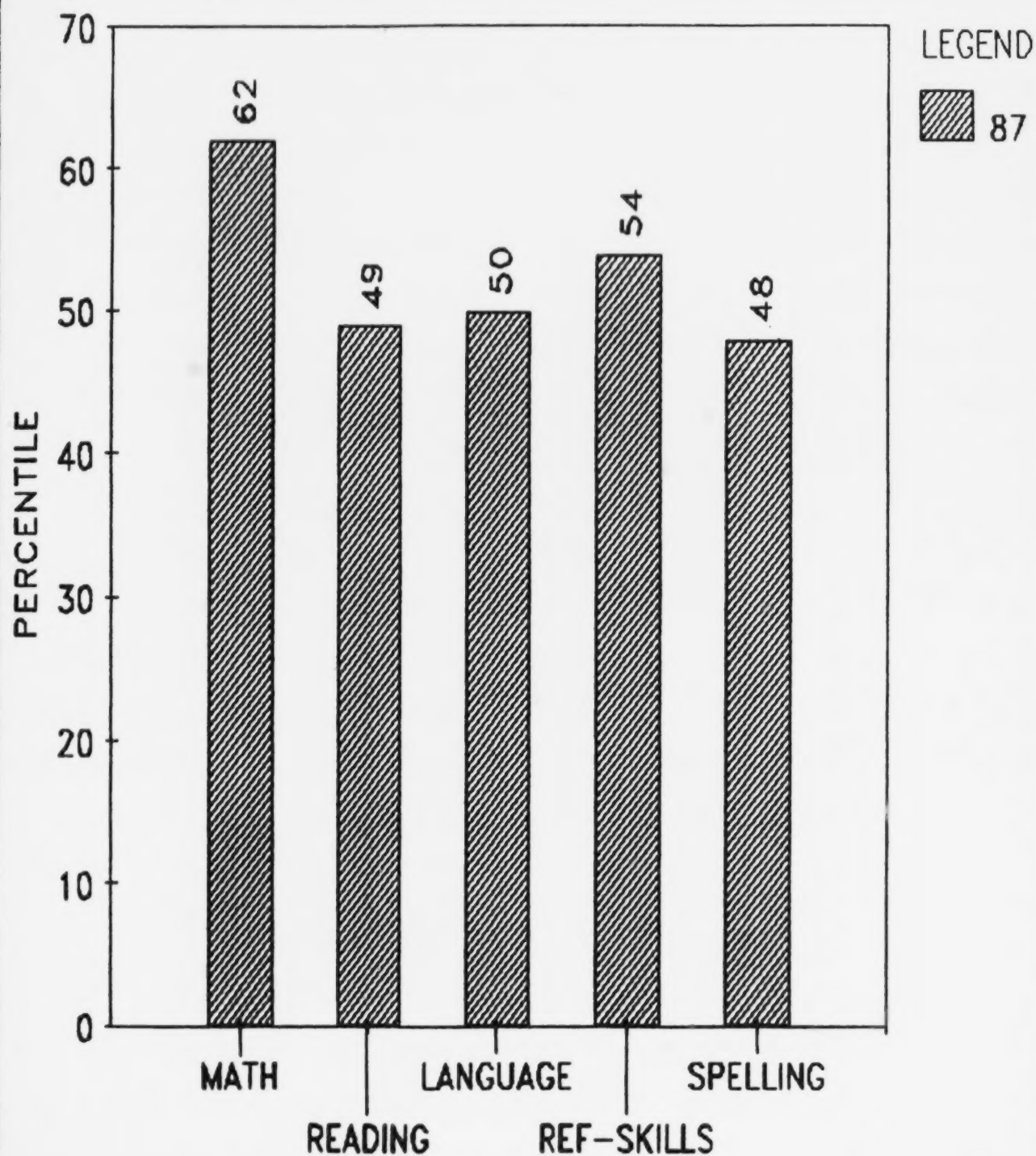
NORWALK SCHOOL TESTING SCORES

CTBS Grade **4** PERCENTILES 1986-1987



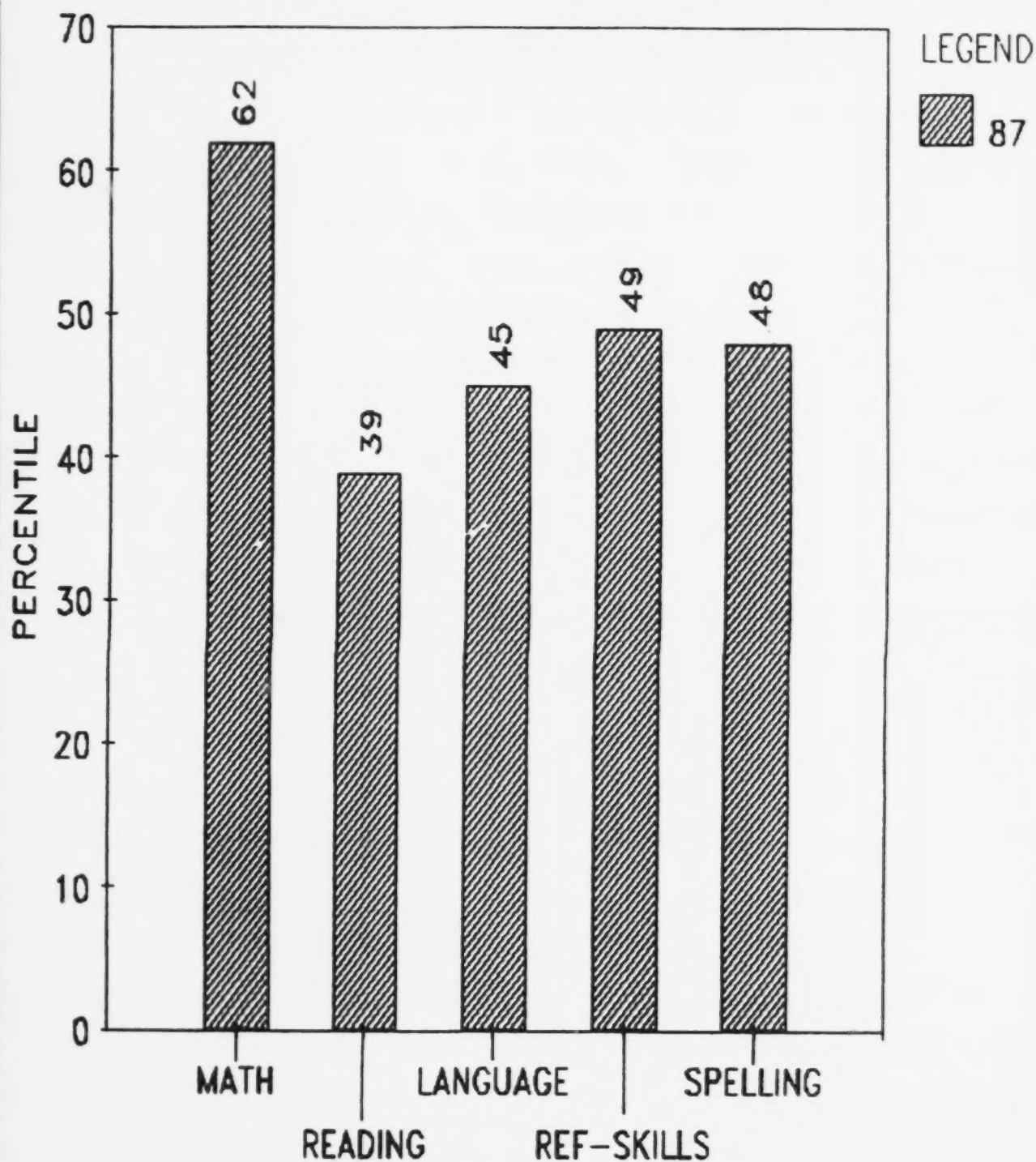
NORWALK SCHOOL TESTING SCORES

CTBS Grade **5** PERCENTILES 1986-1987



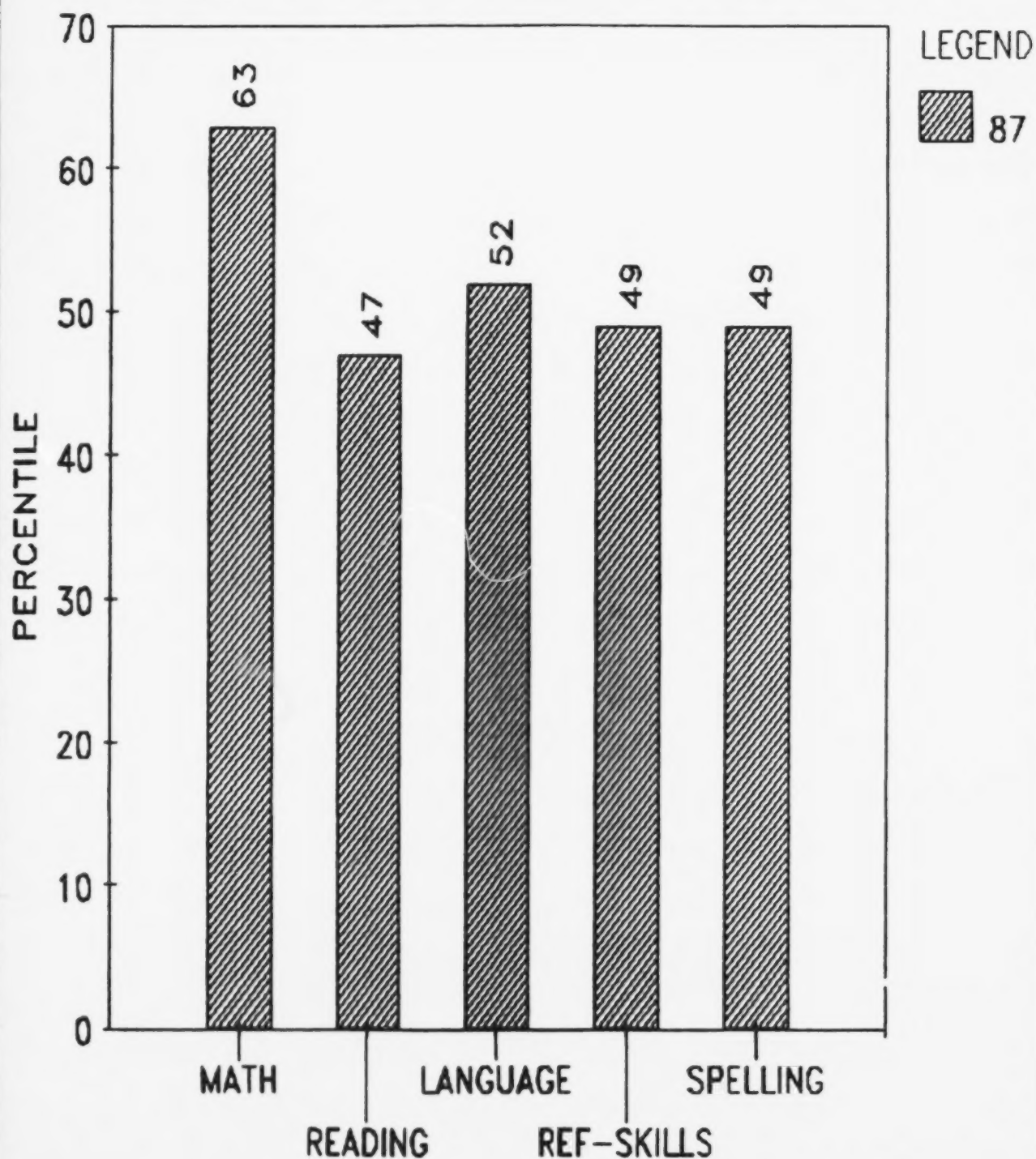
NORWALK SCHOOL TESTING SCORES

CTBS Grade **6** PERCENTILES 1986-1987



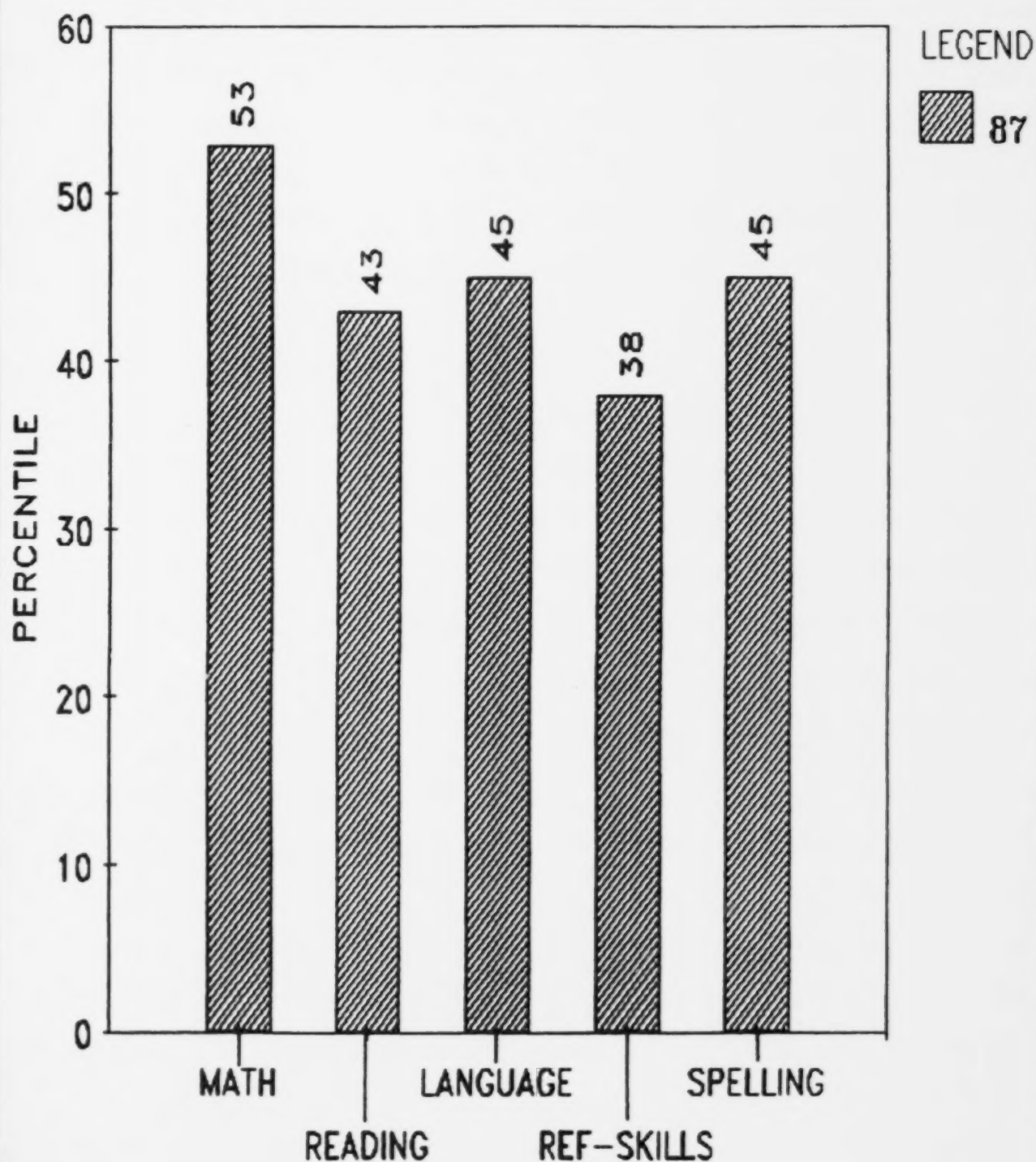
NORWALK SCHOOL TESTING SCORES

CTBS Grade **7** PERCENTILES 1986-1987



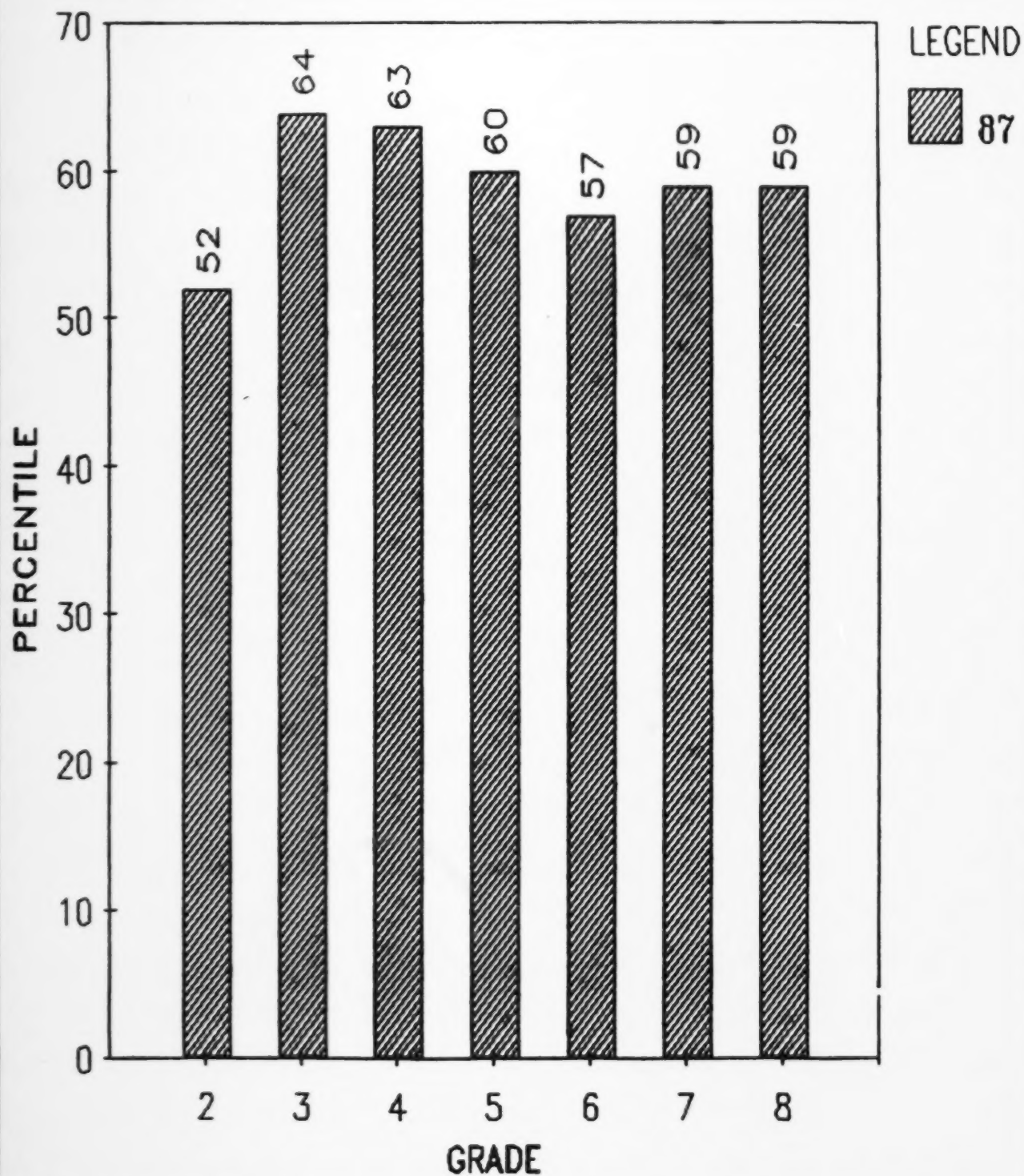
NORWALK SCHOOL TESTING SCORES

CTBS Grade **8** PERCENTILES 1986-1987



NORWALK SCHOOL TESTING SCORES

TCS PERCENTILES 1986-1987 BY GRADE



NORWALK SCHOOL TESTING SCORES

TCS PERCENTILES 1986-1987 BY GRADE

including SUB-TESTS (SPRING 87)

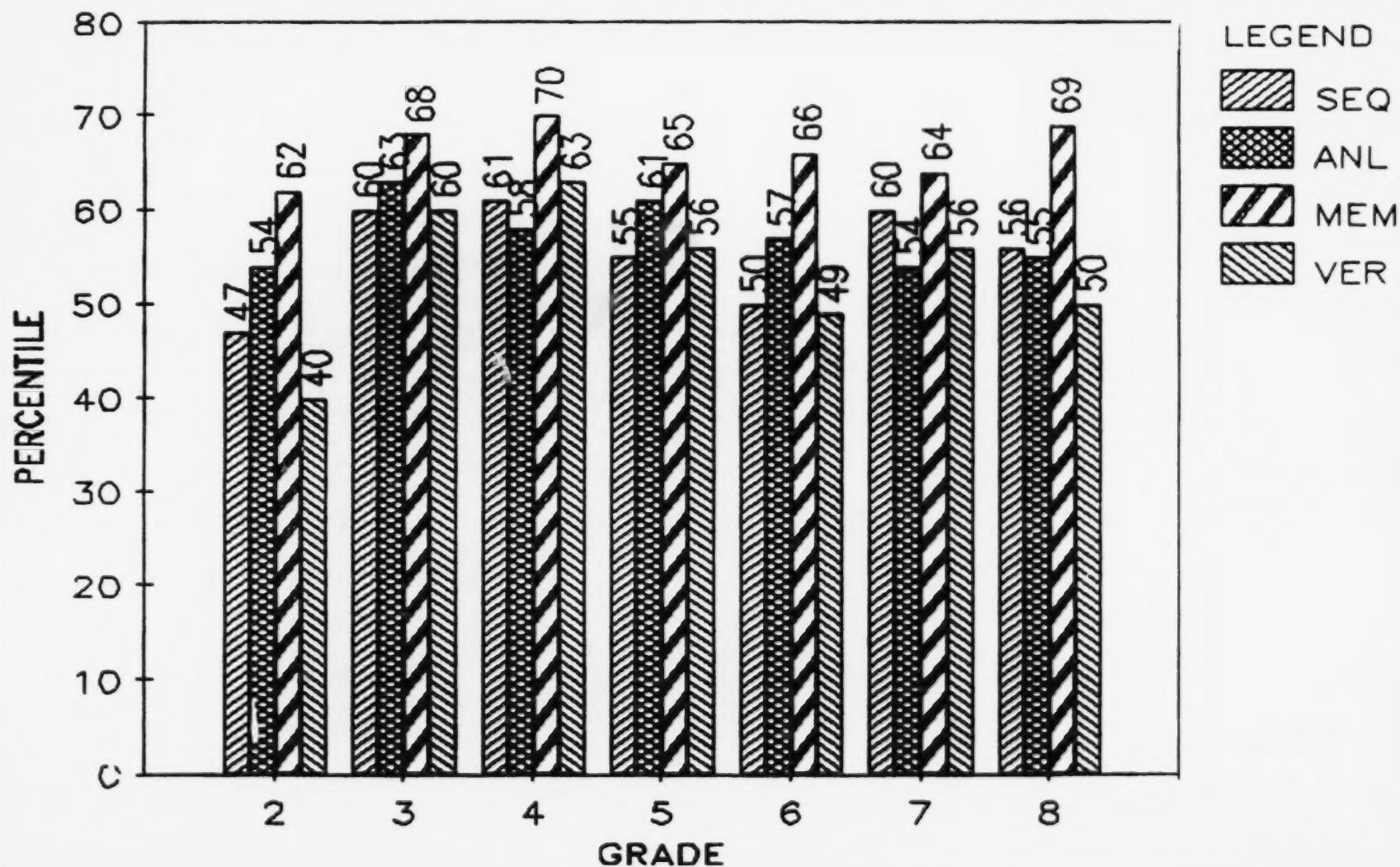


Table 3 : Norwalk Grade 2 System-wide Performance on the Comprehensive Test of Basic Skills (Total Reading score) and the Test of Cognitive Skills (Total score), May 1987.

TCS		Stanine Scores	1	2	3	4	5	6	7	8	9	Total No. of Students
Total Reading	9						8	18	14	18	33	91
Stanine Scores	8				2	3	10	13	4	12		44
	7			2	8	9	20	18	5	13		75
C	6		4	5	12	19	26	21	14	15		116
T	5	1	2	6	23	30	21	16	8	3		110
B	4	3	9	21	22	30	13	5	7	3		113
S	3		5	8	6	14	7	1	3	-		44
	2	3	4	2	5	3	-	-	-	-		17
	1	-	-	8	6	4	3	-	-	-		21
Total No. of Students		7	24	52	84	120	118	88	59	79		631

Table 4 : Norwalk Grade 2 System-wide Performance on the Comprehensive Test of Basic Skills (Total Mathematics score) and the Test of Cognitive Skills (Total score), May 1987.

TCS		Stanine Scores	1	2	3	4	5	6	7	8	9	Total No. of Students
Total Math	9			2	4	6	24	21	23	43		123
Stanine Scores	8		2	3	1	18	15	21	5	12		77
	7		-	1	6	15	18	16	8	10		74
C	6		2	4	18	20	26	16	13	10		109
T	5		3	15	20	28	17	12	8	3		106
B	4	1	8	17	14	21	10	2	-	1		74
S	3	3	2	5	11	7	5	1	1	-		35
	2	2	2	3	4	5	3	-	1	-		20
	1	1	6	3	7	-	-	-	-	-		17
Total No. of students		7	25	53	85	120	118	89	59	79		635

Table 5 : Norwalk Grade 3 System-wide Performance on the Comprehensive Test of Basic Skills (Total Reading score) and the Test of Cognitive Skills (Total score), May 1987.

TCS Stanine Scores	1	2	3	4	5	6	7	8	9	Total No. of Students
Total Reading Stanine Scores	9									
	8						6	4	16	26
	7				1	3	10	22	41	77
C	6			3	5	20	30	26	32	116
T	5		1	8	27	40	25	25	15	141
B	4		6	8	38	36	46	16	4	156
S	3		5	15	16	20	8	1	-	65
	2	2	2	4	6	3	1	-	-	18
	1	2	1	2	-	4	1	-	-	10
Total No. of Students	4	14	30	71	96	119	88	81	106	609

Table 6 : Norwalk Grade 3 System-wide Performance on the Comprehensive Test of Basic Skills (Total Mathematics score) and the Test of Cognitive Skills (Total score), May 1987.

TCS Stanine Scores	1	2	3	4	5	6	7	8	9	Total No. of Students
Total Math Stanine Scores	9					1	4	13	35	53
	8				1	6	7	9	11	34
	7				5	4	16	24	30	79
C	6			4	12	28	19	18	26	107
T	5		1	13	19	48	26	12	4	123
B	4		3	5	24	31	20	14	2	99
S	3	1	5	11	17	21	14	2	1	72
	2	1	4	6	9	6	1	-	-	27
	1	2	2	5	5	2	-	-	-	16
Total No. of students	4	14	28	72	97	122	88	79	106	610

Table 7 : Norwalk Grade 4 System-wide Performance on the Comprehensive Test of Basic Skills (Total Reading score) and the Test of Cognitive Skills (Total score), May 1987.

TCS Stanine Scores		1	2	3	4	5	6	7	8	9	Total No. of Students
Total Reading Stanine Scores	9						1	6	9	38	54
	8						3	6	11	32	52
	7					2	8	13	20	51	94
C	6				5	7	14	42	32	34	134
T	5		1	3	8	26	31	43	7	4	123
B	4	3	2	11	27	27	28	10	4	2	114
S	3	1	5	7	13	16	7	1	-	-	50
	2	1	1	1	9	2	3	3	-	-	20
	1	-	-	10	6	3	-	-	-	-	19
Total No. of Students		5	9	32	68	83	95	124	83	161	660

Table 8 : Norwalk Grade 4 System-wide Performance on the Comprehensive Test of Basic Skills (Total Mathematics score) and the Test of Cognitive Skills (Total score), May 1987.

TCS Stanine Scores		1	2	3	4	5	6	7	8	9	Total No. of Students
Total Math Stanine Scores	9						2	17	15	72	106
	8					1	3	8	15	39	66
	7			1	2	3	16	29	23	25	99
C	6			1	4	11	21	28	15	16	96
T	5		1	2	18	25	24	20	9	5	104
B	4	2	4	8	26	32	19	18	4	3	116
S	3	1	3	12	13	7	3	4	-	-	43
	2	1	1	5	4	2	5	-	-	-	19
	1	1	-	3	1	3	2	-	-	-	10
Total No. of students		5	9	32	68	84	95	124	81	161	659

Table 9 : Norwalk Grade 5 System-wide Performance on the Comprehensive Test of Basic Skills (Total Reading score) and the Test of Cognitive Skills (Total score), May 1987.

TCS Stanine Scores	1	2	3	4	5	6	7	8	9	Total No. of Students
Total Reading Stanine Scores	9						2	8	15	25
	8				1	3	10	7	25	46
	7			1	6	18	22	19	18	84
C	6			3	12	38	24	23	9	109
T	5		3	14	31	42	17	6	1	114
B	4		5	14	34	34	9	4	-	131
S	3	2	4	12	16	12	77	2	-	56
	2	1	5	9	6	5	1	-	-	27
	1	1	4	2	3	-	-	-	-	10
Total No. of Students		4	18	40	77	101	140	86	67	602

Table 10: Norwalk Grade 5 System-wide Performance on the Comprehensive Test of Basic Skills (Total Mathematics score) and the Test of Cognitive Skills (Total score), May 1987.

TCS Stanine Scores	1	2	3	4	5	6	7	8	9	Total No. of Students
Total Math Stanine Scores	9			1	-	4	10	13	37	65
	8				2	8	13	16	14	53
	7			4	10	31	25	21	12	103
C	6		2	9	26	45	22	12	3	119
T	5		1	7	22	33	31	7	5	109
B	4		6	9	23	17	12	7	-	74
S	3	2	4	15	14	10	8	1	-	54
	2	-	2	5	3	4	-	-	-	14
	1	2	5	3	2	-	-	1	-	13
Total No. of students		4	18	41	78	102	139	86	67	604

Table 11: Norwalk Grade 6 System-wide Performance on the Comprehensive Test of Basic Skills (Total Reading score) and the Test of Cognitive Skills (Total score), May 1987.

TCS Stanine Scores										Total No. of Students	
	1	2	3	4	5	6	7	8	9		
Total Reading Stanine Scores	9					2	2	6	20	30	
	8					3	5	7	26	41	
	7					5	11	14	16	46	
	6		2	3	10	25	24	21	19	104	
T	5			6	33	32	34	16	5	126	
B	4	1	1	8	40	49	34	11	4	3	151
S	3	1	9	26	21	17	6	3	1		84
	2		4	5	6	-	2	-	1	-	18
	1	5	1	5	3	2	1	-	-	-	17
Total No. of Students										617	

Table 12: Norwalk Grade 6 System-wide Performance on the Comprehensive Test of Basic Skills (Total Mathematics score) and the Test of Cognitive Skills (Total score), May 1987.

TCS Stanine Scores										Total No. of Students	
	1	2	3	4	5	6	7	8	9		
Total Math Stanine Scores	9			1	4	6	17	32	60	120	
	8		1	2	6	11	19	15	12	66	
	7			5	14	27	18	13	13	90	
C	6	1	1	6	13	35	27	26	9	119	
T	5		2	7	24	31	19	7	1	91	
B	4		3	10	21	10	7	5	-	56	
S	3	1	3	8	10	9	3	1	1	36	
	2	2	-	11	1	2	3	-	1	20	
	1	3	5	4	1	-	-	-	-	13	
Total No. of students		7	14	47	78	111	103	93	72	86	611

Table 13: Norwalk Grade 7 System-wide Performance on the Comprehensive Test of Basic Skills (Total Reading score) and the Test of Cognitive Skills (Total score), May 1987.

TCS Stanine Scores		1	2	3	4	5	6	7	8	9	Total No. of Students
Total Reading Stanine Scores	9							2	7	23	32
	8					1	2	10	10	15	38
	7					1	8	17	20	18	64
C	6			1	1	17	25	35	15	10	104
T	5			7	18	21	47	23	3	3	122
B	4		1	18	36	42	23	5	-	-	125
S	3	3	7	14	17	10	3	-	-	-	54
	2	2	3	11	7	2	1	-	-	-	26
	1	3	1	2	3	1	-	-	-	-	10
Total No. of Students		8	12	53	82	95	109	92	55	69	575

Table 14: Norwalk Grade 7 System-wide Performance on the Comprehensive Test of Basic Skills (Total Mathematics score) and the Test of Cognitive Skills (Total score), May 1987.

TCS Stanine Scores		1	2	3	4	5	6	7	8	9	Total No. of Students
Total Math Stanine Scores	9					1	-	13	15	33	62
	8					2	7	17	13	18	57
	7			1	2	13	33	32	15	10	106
C	6			2	12	23	39	23	7	4	110
T	5		1	6	27	25	18	7	2	1	87
B	4	4	2	20	27	23	8	1	-	-	85
S	3	2	1	11	8	4	-	-	-	-	26
	2	1	4	5	4	1	-	1	-	-	16
	1	1	1	5	1	1	-	-	-	-	9
Total No. of students		8	9	50	81	93	105	94	52	66	558

Table 15: Norwalk Grade 8 System-wide Performance on the Comprehensive Test of Basic Skills (Total Reading score) and the Test of Cognitive Skills (Total score), May 1987.

TCS Stanine Scores		1	2	3	4	5	6	7	8	9	Total No. of Students
Total Reading Stanine Scores	9							2	5	15	22
	8						1	1	5	11	18
	7				1	2	9	9	9	33	63
	C 6				4	11	27	37	32	23	134
	T 5			1	14	34	49	29	10	2	139
	B 4		3	11	40	42	29	7	3	1	136
	S 3	1	6	9	18	10	4	1	-	-	49
	2	1	5	4	5	3	-	-	-	-	18
	1	5	7	4	2	4	-	-	-	-	22
Total No. of Students		7	21	29	84	106	119	86	64	85	601

Table 16: Norwalk Grade 8 System-wide Performance on the Comprehensive Test of Basic Skills (Total Mathematics score) and the Test of Cognitive Skills (Total score), May 1987.

TCS Stanine Scores		1	2	3	4	5	6	7	8	9	Total No. of Students
Total Math Stanine Scores	9					1	3	4	7	26	41
	8						4	12	17	25	58
	7					5	10	19	17	23	74
	C 6		1	-	8	19	39	35	15	9	126
	T 5		1	5	36	37	46	16	7	2	150
	B 4		5	13	30	34	16	4	4	1	107
	S 3	4	10	8	11	11	5	-	-	-	49
	2	1	2	2	1	1	1	-	-	-	8
	1	3	2	1	-	-	1	-	-	-	7
Total No. of students		8	21	29	86	108	125	90	67	86	620